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PAPERS

FOR

THE TEACHER.

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INTRODUCTION.

THE undersigned proposes to issue annually, so long as he continues to act as Agent of the Regents of Normal Schools of Wisconsin, a DOCUMENT, embodying a summary of the Proceedings of the Teachers' Institutes which may be held under his appointment for the year, together with a number of Papers, which he may deem worthy of study and preservation by the Teachers of Wisconsin. The number of Papers in each annual issue, and the subject and extent of each Paper, and the general style of publication, will depend on his discretion. The document will be furnished to members of one or more of the Institutes, who shall subscribe and pay for the same in advance, on the terms made known at each Institute.

The Papers will be issued annually for sale, as valuable contributions to the Educational, and particularly to the Pedagogical Literature, of the country. They will for the most part have been originally prepared for, and published in, the American Journal of Education.

HENRY BARNARD,
Agent of the Regents of Normal Schools.

MADISON, WISCONSIN,
December, 1859.

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Number One—1859.

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INTELLECTUAL EDUCATION:

OR, THE CULTIVATION OF THE PERCEPTIVE, REFLECTIVE, AND EXPRESSIVE FACULTIES.

BY WILLIAM RUSSELL, A. M.,

EDITOR OF THE AMERICAN JOURNAL OF EDUCATION, (BOSTON,) 1826 TO 1829.

[Reprinted from Barnard's American Journal of Education.]

PREFATORY REMARKS.

The series of lectures, of which the following are a part, was addressed, originally, to students pursuing a course of professional study, under the author's direction, in the Merrimack (N. H.) Normal Institute, and in the New England Normal Institute, Lancaster, Massachusetts. The course, as delivered, extended to the subjects of physical, moral, and æsthetic culture; including, under the latter heads, remarks on principle as the foundation of character, and suggestions on the cultivation of taste.

In the delivery of the lectures, it was deemed important to avoid the unfavorable influence of formal didactic exposition, in a course of professional lectures to a youthful audience. Equal importance, however, was attached to a strict observance of the systematic connection of topics, and the theoretic unity of the whole subject. The method adopted, therefore, in the routine of the lecture-room, was to treat a given point daily, in a brief oral address on one prominent topic, selected from the notes embodying the plan of the whole course.

At the suggestion of Dr. Henry Barnard, the notes, in their connected form, were transcribed for insertion in his Journal; and the lectures on Intellectual Education were selected for this purpose, rather as an experiment, on the part of the author, in his uncertainty how far it might be advisable to present the whole series. But the unexpectedly favorable reception which the course on intellectual education has met from teachers, both at home and abroad, would have induced the writer to transcribe the other portions of the series, had health and time permitted. The subjects here referred to, however, will be introduced, from time to time, as may be practicable, in future numbers of Dr. Barnard's Journal.

The thoughts presented in the following pages, the author hopes, may serve to attract the attention of teachers who are so situated as to occupy the ground not merely of instructors but of educators, who have it in their power to control, to some extent, the plan and progress of education; and all teachers of the requisite zeal and thoughtfulness, even in the most limited sphere of responsibility, can do much in this way, by their personal endeavors in instruction. It is not in one department only, or in one stage, that the field of education needs resurveying.

PREFATORY REMARKS.

The whole subject, notwithstanding our many valuable recent improvements in processes and methods, physical and moral, as well as intellectual, needs a careful reconsideration as to its true requirements, and a thorough revision of our plan of procedure and modes of culture.

It is true that, in seminaries of education of every grade, we are ceasing from a blind following of prescription imposed by the past. Mental discipline, rather than intellectual acquisition, is now more generally recognized as the true aim of education; and liberal changes and generous allowances, as regards the adaptation of text-books and plans of instruction, have accordingly been made. But, as yet, the point of view selected by most even of our most considerate and genial counselors on the great theme of education, has been far from a commanding one. It has been that of subjects and sciences and departments of knowledge, with their respective demands upon the mind, instead of that of the mind itself, and its divine laws of action and progress, as prescribed by its own constitution and wants, its appetites and instinctive preferences. To attract attention to these, as the true principles of education, is the chief aim of the suggestions embodied in the following pages.

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CULTIVATION OF THE PERCEPTIVE FACULTIES.

INTRODUCTORY OBSERVATIONS.—The circumstances in which the following lectures were delivered, will, it is thought, account for the prominence given in them to many things merely elementary, as regards the science of mind and the philosophy of education. An audience favored with the advantages of high intellectual culture, or of long experience in instruction, would, doubtless, have required a different treatment of many topics discussed in such a course of lectures as the present. But a long series of years occupied in the training of teachers, has proved to the author of the present communication, that the greater number of candidates for the office of instruction, and of those to whom its duties are comparatively new, need nothing so much as an elementary knowledge of intellectual philosophy, and of logic, in their connection with education, as the science which teaches the appropriate development and discipline of the mind.

The Teacher's Aim in Instruction.—Few teachers, at the present day, regard knowledge as the great end even of intellectual education. Few are now unwilling to admit that the chief aim of their daily endeavors, as instructors and educators, should be to train, develop, and discipline the powers by which knowledge is acquired, rather than to attempt the immediate accumulation of knowledge itself. In practice, however, and, more particularly, in the case of young teachers, and of those who follow the occupation as a transient one, and not as the vocation of a life-time, the eagerness for definite and apparent results, or even showy acquirements, too often induces the instructor to confine his attention to the mere mechanism of specific processes, —to the committing to memory, and the repetition of a set task, with or without the aid of explanation. This course he knows will nominally secure a single point in practice or effect. He thinks, perhaps, that, although not fully understood or appreciated now, it will certainly benefit the mind of his pupil at some future day, when his mind is more mature. Hence, we still have, in our school routine, too much of mere rule and repetition, detached fact and specific direction, the lesson of the hour and the business of the day, and too little of the searching interrogation, close observation, reflective thought, and penetrating investigation, by which alone the mind can be trained to the acquisition of useful knowledge, or the attainment of valuable truth.

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*The series of lectures of which the present forms a part, extended to the departments of physical and moral training. But those on the progress of intellectual culture, are selected as more easily presented in the form of a series of articles for an educational Journal.

Necessity of Plan and Method.—The master builder, when he goes to oversee his workmen, and watch their progress in the work of raising the edifice, for the construction of which he has entered into contract, never fails to carry with him his plan of erection, and with that in his hand, for constant reference, gives directions for even the minutest details in working. He does nothing but in execution of his plan, and in strict accordance with it. The master builder thus reads a lesson to the master instructor, (inward builder,) who, although he needs not plan in hand, for his peculiar work, needs it no less, ever present to his mind, if he wishes to become "a workman that needeth not to be ashamed;" if, in a word, he would enjoy the conscious pleasure of referring every day's labor to its destined end of building up the mental fabric in strength, and symmetry, and enduring beauty.

The young teacher, as he reviews the business of the day with his pupils,—and would that this were a daily practice in every school!—should ever refer, in his own mind, at least, to the general effect of every exercise, as tending to the great results of education,—to the expansion of the mind, to the formation of habits of observation and inquiry, to control over attention, to the clearing and sharpening of the percipient faculties, to the strengthening of the mind's retentive power, to securing, in a word, intellectual tendency and character, as the basis of moral development and habit. The teacher, not less than the builder, should ever have, in his mind's eye, the plan of his edifice; and while, during the whole process of erection, he wastes no time on fanciful theory or fantastic ornament, every operation which he conducts should be, to his own consciousness, part of a great whole, tending to a grand consummation. Text-books, processes, exercises, apparatus of every description, are properly, but the pliant tools, or the subject material, in the hands of the skillful teacher, by means of which he does his great work of "building up the being that we are;" and all these aids he arranges, selects, modifies, and applies, according to the system suggested by his plan and purpose.

As the overseer and artificer of the mental fabric of character, the teacher who is worthy of the name, must necessarily possess a knowledge of the material on which he works. It would be well, were this knowledge always profound and philosophical; and, among the happy anticipations suggested by the establishment of normal schools, none is more cheering than the hope that, ere long, society will be furnished with a numerous class of teachers, competent to understand and guide the young mind through all its stages of growth and development, and furnished with all the requisite means of securing the noblest results of human culture.

Meanwhile, the laborers who are already in the field, and who have not enjoyed, perhaps, extensive opportunities of acquiring a scientific knowledge of the chemistry of mental culture, must be content with such aids as their own observation, reading, reflection, or experience, may furnish.

As a slight contribution to the common stock of professional facilities, the author of the present article would submit the following outline to the consideration of his fellow teachers, as an intended aid to the systematizing of their efforts for the mental advancement of their pupils.

The analysis which follows, extends, it will be perceived, no farther than to the limits of intellectual education. The physical and the moral departments of culture, may be discussed at another opportunity, and must be dismissed for the present, with the single remark, that the natural unity of the human being, demands a ceaseless attention to these, in strict conjunction with that more immediately under consideration.

Preliminary Analysis.—Contemplating man's intellectual constitution as subjected to the processes of education, we may conveniently group his mental powers and faculties under the following denominations:—*perceptive*, *reflective*, and *expressive*. In expression, as a function of man at the period of his maturity, the order, in the preceding classification, may be termed the normal or usual one. Man perceives, reflects, speaks. But in education, whether regarded as a natural process or an artificial one, the order of classification suggested by the experience and the history of the human being, in his early and comparatively immature condition, would present the *expressive* powers as in exercise long before the *reflective*, and, subsequently, as the appointed means of developing these, through the medium of language.

Outline of Intellectual Culture.—An outline map, or plan of intellectual culture, as aided by the processes of education, may be carried into practical detail, as suggested by the following prominent points of analysis.

1. Classification of the intellectual faculties, by the different modes, or forms of mental action.

2. Statement of the actuating principle, or impelling power of each class or group of faculties.

3. The tendency, or habit of action in each class.

4. The result, or issue of such action.

5. The educational processes adapted to each class of faculties with a view to aid its natural tendency, and secure its results.

From the imperfection of our language, in relation to topics strictly mental, or purely philosophical, the word *faculties* is unavoidably employed to represent the diversities in modes of action of the mind, which, in itself, is, properly speaking, one and indivisible. But if we keep fully before us the etymological signification of the term *faculties*, (resources, means, powers,) we shall regard it but as a figurative expression, suggestive of the indefinitely diversified states, acts, operations, processes, powers, or modes of action, attributable to the mind, —itself a unit.

Adopting the general classification before referred to, we may commence the partial filling up of our outline with

1. THE PERCEPTIVE FACULTIES.

1. Their *modes* or forms of action:

a, sensation; *b*, perception; *c*, attention: *d*, observation.

2. *Actuating principle*, or impelling force, *curiosity*,—or the desire of knowledge.

3. *Tendency*, or habit of action,—*observation.*

4. *Result*, or issue of action,—*knowledge.*

5. *Educational process*, forms of exercise, or modes of culture, development, and discipline suggested by the four preceding considerations,—*examination*, *analysis*, *inspection*, *interrogation*, *direction*, *information*, *comparison*, *classification*, *induction*. In other words, the appropriate *presentation of objects to the senses*, accompanied by mutual question and answer by teacher and pupil;—with a view to quicken sensation, awaken perception, give power of prompt and sustained attention, confirm the habit of careful observation, stimulate curiosity, and insure the extensive acquisition of knowledge.

(1.) CLASSIFICATION OF THE PERCEPTIVE FACULTIES, BY THEIR MODES OF ACTION.

(*a*,) *Sensation*,—the *organic* action by which objects, facts, and relations are presented to the mind, through the media of the *senses*, and which form the conditions of perception.

(*b*,) *Perception*, or cognition,—the *intellectual* action by which the mind *perceives*, (takes notice, or cognizance of,) data presented by the senses.

(*c*,) *Attention*,—the *mental* action by which, under the incitation of *desire* or *volition*, the percipient intellect *tends*, for the purposes of distinct cognizance, towards the object, fact, or relation presented to it.

(*d*,) *Observation*,—*the voluntary, sustained, or continuous exercise of attention*, with which the mind directs itself toward the object of its contemplation, for the purpose of complete intuition and perfect recognition.

All the terms now defined, are but different designations for the various forms in which the intuitive action of the intellectual principle is solicited by objects external to itself. The English language, as the product of mind working chiefly in practical directions, possesses little of the clearness and distinctness in nomenclature which the topics of intellectual analysis so peculiarly require. But the four terms used above are sufficient to comprise the prominent forms of perceptive action, in the various processes of intellection. They all refer significantly enough, to the first efforts of intelligence, when, previous to any introversive or reflective act, of comparatively subtile or intricate character, it obeys the instinct of its appetite, and finds its sustentation by feeding on the aliment tendered to it by its Author, in the objects which environ it. To watch and guide, and coöperate with this instructive principle, is the true office of education, as a process of nurture and development, working not in arbitrary or artificial, but in salutary and successful forms,—forms not devised by the fallible ingenuity of man, but by the unerring wisdom of Supreme intelligence.

Prevalent error in the order of cultivation.—Contrary, however, to the obvious suggestions of fact, education is still too generally regarded as consisting, during its earlier stages, in arbitrary exercises of memory on combinations of printed characters, abstract numbers, or even the metaphysical relations involved in the science of grammar. The excuse offered for a blind following of precedent in this direction, usually is the peculiar susceptibility of memory, during the period of childhood, and the comparative difficulty experienced in attempts to cultivate it at a later stage. Were the educational cultivation of memory directed to the retaining and treasuring up of those stores of knowledge which are naturally accessible to the mind of childhood, within the range of its daily observation, the plea would be justifiable; man's endeavors would be in harmony with the obvious instincts and endowments of the mind, and would tend to its natural expansion and development. But directed to the mechanical and arbitrary results at which these endeavors so generally aim, their influence is detrimental. Their immediate effect is to quench the natural thirst for knowledge, to create a distaste for intellectual activity, and thus to defeat the best purposes of education.

The law of true culture lies in the primary craving of the young mind for material on which the understanding may operate; digesting it, in due season, into the regular form of knowledge which memory loves to retain, and which judgment ultimately builds up into the systematic arrangements of science.

(2.) CURIOSITY, THE ACTUATING PRINCIPLE OF THE PERCEPTIVE FACULTIES.

The Teacher's proper place.—The teacher who enters intelligently upon his work of cultivating the minds entrusted to his care, knows that his chief duty is to cherish the spontaneous action of their powers, and to make them intelligent and voluntary co-workers in their own development. He observes, therefore, with careful attention, the natural tendencies and action of the intellectual system, as the physiologist does those of the corporeal, so as to become competent to trace the law of development, and adapt his measures to its requirements. He thus becomes qualified to take his proper place, as an humble but efficient co-worker with the Author of the mind, recognizing and following His plan, in modes suggested by a wisdom higher than human.

The attentive study and observation of the natural workings of the mind, in the successive stages of its progress, from incipient intelligence to maturity of reason, imply, however, not merely a careful analysis of the facts and modes of mental action, but a watchful observation, with a view to detect, in all cases, the moving power or *impelling principle* of action, to aid and regulate which is the educator's chief work. The ceaseless intellectual activity of childhood, maintained through the various media of perception, furnished by the organs of sense, is obviously stimulated by the constitutional principle of *curiosity*, an eager *desire to know* and *understand*, and therefore, *to observe* and *examine*. Hence the irrepressible and searching questions with which children, in the instinct of faith, appeal to whomsoever they think can satisfy their craving for information.

To feed this mental appetite, to select and prepare its proper nutriment, to keep it in healthy and healthful activity, to quicken and strengthen it, to direct and guide it, as a divine instinct, leading to the noblest ends, should be the teacher's constant endeavor. To awaken curiosity is to secure a penetrating and fixed attention,—the prime condition of human knowledge; and even when it leads no further than to wonder, it is preparing the advancing mind for the awe and the reverence with which, in later stages of its progress, it looks up to the knowledge which is "too high for it."

The emotion of wonder analogous to the instinct of curiosity.—Curiosity, like the kindred element of wonder, finds its sustenance in whatever is new to sensation or perception; *wonder*, in turn, leads the mind to dwell on whatever is *strange*, *intricate*, or *remote*; *astonishment*, arrests it by whatever is *sudden* and *powerful*; *awe* commands it by whatever is *vast*; and *amazement* overwhelms it by whatever is *incomprehensible* or *inscrutable*. Yet all of these effects,—even those which, for the moment, act on the perceptive intellect with a repulsive force that makes it recoil in conscious weakness from the object of contemplation,—are but various forms of stimulating, impelling, or attracting force, acting on the irrepressible vitality of the mind; and no incitements are ultimately more powerful in maintaining the most resolute and persevering activity of its powers.

Mental effects of novelty and variety.—In the great primary school of nature, as established and furnished by the Author of all, we observe, accordingly, that in the multiform variety of objects with which the young human being is surrounded, at the first dawning of intelligence within him, the novelty of the whole scene around him, and of every class of objects which it presents, is forever tempting his susceptible spirit to observe and examine, and explore, by the conscious delight which every new step affords him.

Evils of monotony, and advantages of variety.—Nor is the obvious design of the great Instructor less conspicuous in the feeling of satiety and weariness which is always superinduced by continued sameness of mental action, whether prolonged in the same mode of exercise, or on the same class of objects. The observant teacher thus learns his own lesson of duty,—to avoid undue limitation in the objects and forms of intellectual action, to shun sameness and monotony of routine, and protracted exertions of attention, as all tending to exhaust and enfeeble the mental powers. His endeavors, on the contrary, are all directed to a due diversity in the presentation of objects, and in the mode of mental activity which they call forth; and, in whatever instances frequent repetition is indispensable to exact perception, he is particularly careful to exert his ingenuity to the utmost, in devising new modes of presentation, so as to secure fresh and earnest attention to the same objects or facts, by the renovating effect of the new lights and new aspects in which he causes them to be viewed.

Faults in former modes of education.—It is unnecessary, in our day, to dwell on the obvious faults of the obsolete practice of confining young children within doors at all seasons, compelling them to remain long in one attitude or posture without relief, condemning them to long periods of silence and constraint, and forcing them to con unmeaning and irksome tasks. These injurious practices are now, for the most part renounced; and more genial and rational modes of early education are beginning to prevail. As yet, however, we have only made a beginning. We have reformed our modes of school architecture, and have allowed children the unspeakable benefits of space and air, and more frequent change of place, and posture, and exercise. Objects and pictures are now employed, to some extent, as instruments of mental culture; and the wisdom of all these changes is proved in the greater happiness and better health of our little pupils, and, more particularly, in their greater docility, and their superior intellectual progress, as contrasted with the state of things under the former *regime* of irksome monotony, restraint, weariness, and stupidity. We are very far, yet, however, from approaching the bountiful variety and delightful novelty furnished in the great model school of infancy and childhood, as established by the Divine founder.

Intellectual furniture of school-rooms.—Our primary school-rooms should be so many cabinets of nature and art. Every inch of wall not indispensably required for blackboard exercises, should be secured for educational purposes, by specimens of plants, minerals, shells, birds, and whatever else can be appropriately placed before the eye. The arranging, classifiying, and describing of these, should precede any analysis or study of letters or syllables. Pictures representing such objects, should form a second stage of exercises in attention, observation, and description, before any alphabetic drilling whatever. The examination of objects and of pictures, should, in a word, form the natural preparatory training of the perceptive faculties for the more arbitrary and more difficult exercise of studying and recognizing the unmeaning, uninteresting forms of alphabetic characters with their phonetic combinations.

Injurious effects of mere alphabetic drilling.—Curiosity, the natural incitement of intellect, is easily awakened when we obey the law of the Creator, and direct it to His works,—the natural and appropriate stimulants of the perceptive powers of infancy; but when, leaving our proper sphere, and restricting our educational efforts to the mechanical training of eye and ear, we use these organs, and the informing mind, for the limited purpose of recognizing the complicated and irregular geometrical combinations of line and angle, presented in alphabetic characters, and repeating the sounds so arbitrarily associated with these, we take the mind out of its native element; we consequently force and distort its growth, dwarf its stature, and enfeeble its powers.

Effects of the salutary excitement of the feeling of wonder.—But it is not in the first stages only of mental culture, that the influence of novelty and variety is required as an incitement to observation, by the frequent presentation of new and fresh objects of attention, by the agreeable surprises occasioned by new forms and new stages of animal and vegetable life,—all tending to excite a lively curiosity, which leads, in turn, to careful attention, close examination, and successful study. Curiosity should often be awakened by the yet more powerful influence of *wonder*. Objects rare and strange, combinations intricate and even puzzling, should sometimes be called in, to excite a yet more energetic action of the perceptive intellect, in its endeavors to grasp the objects of its contemplation.

Whatever in nature is wonderful,—whether we employ the microscope, in revealing the intricate structure of plant or insect, in the minuter and closer examination of the works of the Creator; or the telescope, in the contemplation of the starry heavens, and the study of the magnitudes and motions of the bodies which people the depths of space,—all should be brought to bear on the young mind, to call forth that sense of wonder which so delights and inspires it, and prepares it, at the same time, for the influence of those sentiments of awe and reverence with which the advancing intellect learns to trace the signatures of Deity.

(3.) OBSERVATION, AS THE TENDENCY OF MENTAL HABIT, UNDER THE INCITING INFLUENCE OF CURIOSITY.

The natural effect of intellectual instinct.—The motive power, or impelling force, by which, in the ordinations of the mind's omniscient Author, its perceptive faculties are incited to activity, and induced to render their tribute to the resources of intelligence, consists in that restless desire to observe, to examine, and to know, which constitutes man a progressively intelligent being. Impelled by this insatiable mental thirst, he is led instinctively to those streams of knowledge which constitute the waters of intellectual life. His perceptive powers thus stimulated, acquire a tendency to ceaseless activity,—a trait which forms the peculiar characteristic of the early stages of his mental progress, and which is greatly quickened by the vividness of sensation in the constitution of childhood. Hence the promptness and versatility of attention at that period, and its remarkable susceptibility to the influences of cultivation and discipline.

These aids, it is true, are, as yet, too scantily furnished in the processes of education; and, even without them, the human being, as he advances under the promptings of instinct, and the guidance of self-intelligence, attains, as in the case even of the savage, to a high degree of perceptive power. The keen, quick, and penetrating glance of his eye, the acuteness and certainty of his ear, the readiness and exactness of his observation of every object within the range of his vision, the searching closeness of inspection with which he examines everything new or uncertain, often furnish an impressive lesson on the value of training, to those whose means and opportunities of intellectual culture are so superior to his own.

Effects of cherishing the habit of observation.—The habit of observation, duly cherished in early years, by the judicious care of the parent and teacher, becomes the security for ample acquisitions in the field of knowledge, and for the daily accumulation of mental resources and of intellectual power. The observant mind, like the close-knit net of the skillful fisherman, encloses and retains the living treasures within its sweep, and deposits them, for use, in their appropriate place. The undisciplined, inattentive, unobservant spectator seizes and retains nothing in his slack and ineffectual grasp.

Suggestive significance of terms in intellectual and educational relations.—The etymology of the word *apprehension*, (seizing, grasping, laying hold of,) suggests an important lesson regarding the value of intellectual training, as dependent on the habit of attentive and close observation. The word *attention*, (tending, reaching, or stretching toward,) is not less instructive in its signification, implying the *tendency*, or the gravitating of the mind's perceptive power toward the object of notice, for the purpose of cognizance, as the first stage of intelligence. The term *observation*, (watching, with a view to obey or follow,) is yet more monitory to the teacher; as it intimates that the true study of external nature demands vigilance, docility, and fidelity; in one word, the devotion of the whole mind to the business of intellectual acquisition. *Perception*, (taking, through a medium,) refers us back to the humble office of sensation, as indispensable to the process of *taking into* the mind the treasures of knowledge offered to the grasp of sense, for the purpose of transmission to the percipient power, the inner principle of intelligence. All of these terms, in the nomenclature of mental science, tend to the same important end, in the uses of practical education: the [illegible]t to the appropriate discipline of the perceptive faculties, [illegible] of objects addressed to the senses, as the primary stage [illegible] culture.

Educational errors.—Former modes of education rendered the use of terms such as the preceding, a nullity, or an absurdity. The child shut up within the naked walls of a school-room, seated on his uncomfortable bench, and mechanically conning by rote, the ill-fitting names of alphabetic elements, or trying to piece them into syllables, had little use of the precious gift of *sense*, but a few lines and angles to *perceive*,—unless a friendly fly should happen to alight upon the page of his primer,—no inducement to *attention* but the fear of Solomon's prescription for "minds diseased," nothing half so interesting to *observe* as the little winged being accidentally crawling on the page before him, displaying the curiously constructed mechanism of its form, its gauzy wings, and many-feathered little limbs, or stopping now and then, to dry-rub instead of washing them, and its tiny head, and flexible bit of neck, almost too diminutive to be seen. But woe to the little student of nature, in the genuine act of *observation*, if he should lift his eye from his book, and follow his brisk little visitant flying off to perform the visible miracle of walking up the perpendicular plane of the window pane, or the yet more puzzling feat of walking the ceiling with his head downward.

Rational method.—The child, in the case supposed, indicates the real want of his nature, and mutely, but most eloquently, pleads for a lesson on insect life, (entomology,) before one on the alphabet. Furnished with the data which the lesson on insect life and form, character and motion, would present to his eye, he would be receiving a rational preparatory discipline of attention and observation, in the close and careful examination of all the details of shape and configuration, exhibited in the living and attractive object before him. His recognition of figure and outline, thus secured, he would, in due season, transfer, easily and willingly, to the artificial display of them in the forms of printed characters.

Benefits resulting from the early formation of habits of attentive observation.—The early training of the perceptive faculties, by a varied and genial discipline of the power of attention, so as to render the habit of observation an unfailing characteristic of the man, becomes doubly valuable, as a result of education, when we regard its effects on the intellectual tastes and pursuits of individuals. A taste [illegible] study of nature, early formed, leads to the practice of col- [illegible] specimens, and thus furnishing the means of successful [illegible] person himself, who collects them, and at the same time to [illegible] is disposed to aid in such pursuits. Were even the ele- [illegible]logy, mineralogy, and zoölogy, generally adop- [illegible] as subjects of attention in primary education, These aids, it is true, are, as yet, too scantily furnished in the processes of education; and, even without them, the human being, as he advances under the promptings of instinct, and the guidance of self-intelligence, attains, as in the case even of the savage, to a high degree of perceptive power. The keen, quick, and penetrating glance of his eye, the acuteness and certainty of his ear, the readiness and exactness of his observation of every object within the range of his vision, the searching closeness of inspection with which he examines everything new or uncertain, often furnish an impressive lesson on the value of training, to those whose means and opportunities of intellectual culture are so superior to his own.

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But it is not merely as a matter of scientific progress, or of taste and enjoyment, that the proper training of the perceptive faculties, by means of objects and observation, rather than by the materials furnished in books, becomes an important consideration in the planning of modes of education, and methods of instruction. Practical utility, also, has its claim to urge in this relation. The larger number of persons, even in the most advanced communities, as regards civilization and refinement, are occupied in some form of active exertion, as the daily vocation of individuals; and while no generous mind can ever look on education as a benefit or a blessing, if it is to be used as a means of training for the occupation of a given caste, it is not less true, that every individual, in whatever class of society, would be vastly benefited by an early course of cultivation on all subjects akin to those which are to form the staple of his mode of life. Botany, geology, chemistry, entomology, for instance, all have their relations to agriculture; and a few hours devoted weekly to the elements of these sciences, will, by their inspiring influence on the young mind, expedite rather than retard the ordinary processes of school education.

Importance of commencing early the study of Nature.—But while no formal or extensive study of these branches can be rationally attempted in primary education, it is most emphatically true, that, in the study of nature, more than in other forms of intellectual action, nothing can be advantageously done but on condition of an early beginning, and the judicious improvement of the opportunity afforded during the period of leisure and susceptibility which occurs to all human beings but once in life. Childhood and youth are, by the Creator's appointment, the period for forming taste and acquiring habits. The most resolute struggles in after years, seldom succeed in effecting a change of mental occupation, or in lending attractive interest to new pursuits. The "pliant hour" must be taken for all processes of mental budding, grafting, or pruning, as well as in those of the orchard. An early dip into the study of nature, will serve to saturate the whole soul with a love for it so strong as to insure the prosecution of such subjects for life. The season is auspicious; the senses are fresh and susceptible; the mind is awake; the heart is alive; the memory is retentive; nature is yet a scene of novelty and delight; and application is a pleasure. The twig may now be bent in the direction in which the tree is to be inclined.

Universal susceptibility to instruction, drawn from Nature.—In a diversified experience of nearly forty years in the field of education, one teacher, at least, can testify that he has not yet found the mind so dull, or the heart so callous, as to resist the attractive intellectual influence of the analysis of even one plant or one mineral. The mysteries of beauty and awe which hang over such objects, as an investing celestial glory, entrancing the imagination and the heart, and all but translating the intellect itself, have a power of attraction which the dullest, coarsest, and most brutalized boy in a ragged school, cannot resist. But of the moral influence of early education, when directed to the aspects of nature, it will be more appropriate to speak in that special connection.

Effects produced on mental character, by the study of Nature.—*The solidity and the firmness of mental character*, which are acquired by the study of *things*, preceding and accompanying that of words and books, are a natural effect of the early and seasonable cultivation of the habit of observing, analyzing, comparing, and classifying, which even the slight examination of any natural object induces.—A clear, decisive, and discriminating judgment, and a retentive memory, are among the other fruits of that mental training which commences with definite objects, capable of being analyzed and reconstructed by the natural and appropriate action of the young mind, in virtue of its own powers and native tendencies. But these considerations, also belong properly to another and more advanced stage of intellectual discipline, at which *the reflective faculties*, and maturing reason, are beginning to put forth their claims for culture and development, in addition to the preparatory training which they may have received in the blended exercises of sense and intellect, in the action of the perceptive faculties.

(4.) KNOWLEDGE, THE INTELLECTUAL RESULT OF THE ACTION OF THE PERCEPTIVE FACULTIES.

Impelled by the instinct of curiosity, and guided by the habit of observation, the young mind,—whether more or less assisted by education,—advances to the goal designated by creative Wisdom,—*the acquisition of knowledge*, the appointed means for erecting the fabric of character on the scale outlined by the Great Architect, but left to man's industry and intelligence, for the filling up and the symmetry of detail.

The part of education which lies more immediately before us, as the object of our attention, being the cultivation of the intellect, the acquisition of knowledge becomes, in this view, a consideration of primary importance, as, at once, a source of intellectual wealth and power, and a most effective means of mental development. Knowledge, as a result of culture, is undoubtedly of inferior value to discipline. But the efforts put forth in the acquisition of genuine knowledge, are, in themselves, a disciplinary process, and the indispensable instruments of further cultivation. Yet more,—intellectual acquirements are true and durable riches,—valuable for their own sake, not merely from the resources which the accumulation of them places at the mind's command, but from their own intrinsic value, as imperishable because intellectual things, and as the successive steps of mental elevation in the scale of being. In reference to intellect, knowledge is, in one most important sense, an end, not less than a means and a measure of progress. Profound, extensive, and varied knowledge, is one of the crowning glories of man, as an intellectual and progressive being, capable of ceaseless development and acquisition. Most emphatically is this true of him, the soundness, and exactness, and completeness, of whose knowledge, are the assurance that he shall be a safe and competent guide along the path of education.

Actual knowledge.—But what is knowledge? How is it acquired? —not by the repetition of the words or the processes of others, not by the transfer from one mind to another of the verbal statements of fact or of abstract principles, not by the formation of vague and partial notions, formed on superficial data, and floating loosely in the mind, not by a half perception or half consciousness of something indefinite or supposititious, not by an assent to rash assumptions or confident assertions, not by the recollections of extensive reading, or perhaps, of attentive listening, retailed in fluent expression, not by accumulating the amplest furniture of second-hand theories and systems, whether plausible or absurd, or even logically consistent. *Knowledge is what we have experienced in our own intellect*, by means of our own observation or reflection, the fruit of personal perception, or of conscious reason, acting on the positive data of sensation. So narrowly must the term be limited, when we refer to the action of the perceptive faculties, or to their appropriate training and discipline. Knowledge, in these relations, is *the accurate interpretation of the facts of sense*, in matters, usually, of color, form, number, weight, or sound, and the relations which these bear to one another in the processes of induction and classification. With the other sense of the term, in which it refers whether to truth or to theory, and implies the deductions of reflective *reason*, we have not, at present, to do. It belongs to a subsequent stage of the analysis of the modes of mental action, as subjected to the processes of intellectual cultivation, and occurs in connection with the discipline of the "reflective" faculties.

Literal accuracy of verbal statement, a false test of knowledge.— The acquisition of knowledge, however, is, notwithstanding all our advances, of late years, in the philosophy of education, too generally confounded with the repetition of the verbal statements of definitions, rules, and systems, as contained in books, even in relations so palpable as those of form and numbers. The test of knowledge, accordingly, with some teachers, to this day, is, even in the exact sciences, the fluency with which a definition or a rule is orally repeated, verbatim, from a text-book, and the mechanical accuracy or despatch with which a correspondent problem is solved, or a proposition demonstrated.

True knowledge experimental and personal. — True perceptive knowledge, on the other hand, or that which is actual and personal, implies, in all relations of form and number, that the individual who possesses it, has seen the object in question, or its representative, in palpable shape, in surface or in outline, that he has subjected it to actual measurement and comparison, or has an exact image of its form and configuration before his mind, that he has actually counted or grouped objects in numbers presented to the eye or to the mind, or that he has compared these with one another, and traced their relations, by strict and exact observation; and the proper office of the text-book is but to confirm and embody the result, and classify it in the exact language and systematic arrangement of formal science, as the specimens are labelled and shelved in a collector's cabinet. The use of scientific method, in the statements of text-books, is but to give logical arrangement to mental acquisitions, not to induce mere assent, whether silent or oral, and not to facilitate the mere repetition or verbal enunciation of propositions.

The proper business of the teacher, as a superintendent of mind.— The true office of the teacher is to see that the pupil is led by his own conscious experience and observation, through the process of perception prescribed in every exercise which he attempts; that the operation is intelligently performed at every step, and the result rendered certain, as far as the limitations of human faculties permit. By frequently repeated performance of the requisite process, the principle in question thus becomes an integral part of personal knowledge with the individual; and his faculties receive, at the same time, a discipline which gives them facility and force in all analogous procedure in which expertness and skill are desirable attainments. In due season, also, he is able to sum up his acquirements in knowledge, in the clear and definite and precise language which science demands, and of which his text-book furnishes a perfect specimen on which he can rely.

At first, however, the young operator may need even the palpable aid of actual objects; and the judicious teacher knows well when to give, and when to withhold such help, when to appeal to the blackboard, and when to have his pupil rely on the mind's eye, during the successive stages of intellectual training. He is careful, however, not to slight or hurry over the business of the rudimental course, in which the reference to actual objects is the main reliance for a sure personal knowledge of the facts of form and number. The collateral discipline, also, arising from the attentive observation and careful study of plants, minerals, leaves, insects, and other natural objects, the intelligent teacher values highly, from the power of attention, and the habit of exact observation, which it tends to secure, by the definiteness which it gives to the action of the mind, and the certainty which it stamps on knowledge.

Contrasted examples of neglect and culture.—True education has no more striking proof of its good effect than may be observed, when the apathy and ignorance of young persons who have been allowed to neglect the observation and study of nature in childhood, and afterwards to go through a class-drill on a given branch, by means of a text-book, are contrasted with the intelligent personal interest and intimate knowledge of those who have been wisely induced to turn an early attention on the productions of nature, and thus to acquire an early love for such studies, and a life-long enjoyment of the pleasures which they afford. Adults of the former class take little interest in the "floral apostles" of the poet, who are ceaselessly preaching the perfection of their Source, or in the pebble at their feet, which, to the intelligent eye, is the medallion struck by the Creator's hand, in commemoration of one of the epochs in His reign. These eloquent monitions of a perpetual Divine presence, are, to such minds, the dead letter of a handwriting which they have not been accustomed to trace, and on which their listless eye falls, as does that of the sceptic, on the page of written revelation. The mind, on the other hand, which has been early trained to an intelligent personal interest in the productions of Creative wisdom and power, enjoys a personal property, and a personal reference, in every object in nature, finds, in "the meanest flower that blows, thoughts that do often lie too deep for tears;" and ultimately to it,

> "The delicate forest flower,
> With fragrant breath, and look so like a smile,
> Seems, as it issues from the shapeless mould,
> An emanation of the indwelling Life,
> A visible token of the upholding Love,
> Which are the soul of this wide universe."

The definiteness and the certainty, however, which give conscious life and power to all such knowledge, depend, to a great extent, on the faithful training which the perceptive power has undergone in the nurturing stage of education. The poet whose words of truth and love convince us that he has attained to the rank of an inspired seer, set out on his career from the common starting place of infancy, in blank ignorance of every object and of every fact around him; and his brother bard whose office it is to announce, in the language of astronomy, the harmony of the spheres, and read to mankind the legislation of the heavens, had no vantage ground at his outset on those excursions which ultimately extend beyond Orion and the Pleiades. Nor was there any special dispensation antecedent to the slow but sure processes of culture, in favor of the electrician who, in the maturity of his acquirements, became competent to transmit and diffuse intelligence with the literal rapidity of lightning; and what shall we say of the barefooted mason's boy, who commences his career of "glory and of joy," plodding over the stone which he has broken with his unpracticed apprentice hammer, and, at length, reads, from that same fragment, to the delight and astonishment of mankind, the facts of an antediluvian world? All the treasures which such minds have brought from their various explorations, as tributes to the treasury of science, and to man's dominion in the sphere of knowledge, are but the varied fruits of unwearied, progressive observation, accumulating fact upon fact by the patient process of attentive examination of objects, and by the skillful exercise of well disciplined perceptive faculties. Such noble efforts of mental power we contemplate with a delight mingled with reverence and gratitude to their authors, as benefactors of the race. The worship which human ignorance, in its wondering admiration, extended, of old, to the mythic demi-god and hero, might, we think, have been pardoned had it been offered to our venerated contemporary Humboldt, who, at an age rarely attained by modern man, withdraws, at intervals, from the onerous duties of a councilor of state, to record the acquisitions of a mind which, from early years, has been exploring the wonders of nature, and now, year after year, pours forth another and another book of the great epic of creation, to which he has so appropriately given the sublime title, "Cosmos."

The written life of this truly great man, however, only enables us to trace the progress of another watchful observer of nature, as, step by step, he observes, examines, compares, classifies, aggregates, and accumulates, till he stands before us an intellectual Atlas, upholding the sphere of human knowledge. Liberal education, favorable opportunities faithfully improved, an insatiable thirst for knowledge, and devoted application to the acquisition of it, explain the wonder. Let us inquire then, for a moment, into the processes by which human culture achieves the miracle of such results.

(5.) THE APPROPRIATE EDUCATIONAL PROCESSES FOR THE EXERCISE, DEVELOPMENT, AND DISCIPLINE, OF THE PERCEPTIVE FACULTIES.

The law of progressive intellection.—Watching the successive steps of man's intellectual development, as he advances, consciously or unconsciously, in pliancy and power of mind, we see him first incited by an irrepressible principle of *curiosity*, stimulating him to watchful attention, *close observation*, and *minute inspection*, for the purpose of acquiring a satisfactory *knowledge* of things around him; that he may, in due season, be prepared to enter upon a new and higher cycle of his ceaseless progress, and from the materials of *perception*, feed the *reflective* faculties of *judgment* and *reason*, which lead to the higher goal of *truth*, where alone the cravings of intellect can find rest and satisfaction.

Provision of educational apparatus.—The first care of the watchful and intelligent teacher, as the guide and director of the intellect, is obviously, in compliance with the law of intellectual progress, as traced above, to make liberal provision of the palpable material of *perception*, by which the instinctive appetite of curiosity is at once fed and stimulated, attention awakened, observation secured, and knowledge attained. Objects abundant in number, and varied in character, form and aspect, but chiefly those furnished by nature, and, more particularly, those which occur most frequently within the range of the child's actual observation, are the true and appropriate apparatus of his education. To the examination and inspection of these his mind naturally tends; to the process of extracting knowledge from these, his perceptive powers are expressly adapted; in such occupation he takes delight; working on such material, he is inspired by the consciousness of progress and of perpetually augmenting vigor; and thus he becomes a willing and efficient, because an intelligent agent in his own development.

Discipline of the Senses.—*Sight; color.*—Sensation, though the humblest form of mental action, being the first in the natural order of intellectual development, suggests to the parent and teacher the great importance of a due attention to the early cultivation of the senses, especially of those whose action is so distinctly intellectual in character and result as is that of *sight* and *hearing*. The proper organic training of the eye implies, what is too often overlooked, an attentive regard to *color*, as well as *form*; the former of these being very early developed, and evidently, in all normal cases, a source of peculiar delight in infancy, not less than of high æsthetic gratification in subsequent appreciation of beauty, both in nature and art. Long before the infant shows any distinctive recognition or appreciation of form, it manifests a keen perception and intense pleasure in the observation of all objects of brilliant color.

Under the management of the judicious mother, balls of the three grand primary colors of the painter,—blue, red, and yellow,—form an inexhaustible source of pleasure to the infant eye; while they give an unconscious exercise and discipline to the perceptive faculty, and prepare the way for the subsequent, definite, and intelligent recognition of the great lines of distinction drawn on the field of vision by the Hand which has blended color with light. Field or garden flowers, or even wayside weeds, placed within the range of the eye, serve a similar purpose. Subsequently, the principal intermediate *gradations* of color, as they occur in objects of nature or of art, in varied tints and hues, may be presented to the sight, in due succession, as a pleasing exercise for the faculties of childhood, in its progress. For this purpose, flowers, the prism, the tints and half tints of the clouds, the glow, or the hue of evening and morning skies, throughout the year; the ever-varying colors of autumn, from their fullest flush to their gradual waning and decay; all are admirable materials for the intellectual and æsthetic cultivation of the human being, along the successive stages of his development. The mind early trained to a sense of the beauty of color, can hardly be withheld, in after years, from the profoundest application to the study of light, as "a feast of nectared sweets, where no crude surfeit reigns." Purity and perfection of taste in art, are another sure result of early cultivation, in this respect. How much intelligence, and how much intensity of pure and even sacred gratification, may thus be superadded to the sentiment of reverential delight in the works of the Creator, it would be difficult for even the most skillful master of expression to say.

Form.—The early cultivation of a discriminating perception of the distinctive characters of *form*, through a carefully conducted, progressive discipline on objects submitted to the eye, is one of the most purely intellectual processes to which the mind of childhood can be subjected. The cube, the sphere, the cylinder, the cone, the pyramid, when judiciously introduced among the playthings of early childhood, as was strikingly exemplified in the schools of Pestalozzi, become unconsciously, but most surely, a basis and standard in all the relations of form; and, under the guiding suggestions of the teacher, they tend to give the mind definiteness and certainty in its action, on whatever relates to geometrical details of figure in nature, art, or mechanism. The primary truths of solid, superficial, and linear geometry, are thus imbedded in the mind, identified with its action on all visible objects, and help to constitute the observer an intelligent spectator, through life, of the grand elemental forms of the universe.

Measure.—Convenience and utility, too, have their claims to urge in favor of an early discipline of the eye on all details of *measurement*. An exact appreciation of measure, for in-door purposes, should be laid in permanent inch, and half and quarter inch marks, on the school-room wall; and to these should be added those of the foot and the yard. A mile, with its subdivision into halves, and quarters, should be measured off, as a permanent standard for the young eye, as it approaches or leaves the threshold of the school-room. The acre and the rod, and all other details of land measure, should be made familiar to the eye of boyhood, by express measurement, in the nearest accessible field or square.

Number.—Veritable ideas of number belong, also, to the early discipline of the eye, and are greatly dependent on the actual presentation of objects, for this special purpose. We read, in the accounts of one English exploring voyage, that the inhabitants of one group of islands in the Pacific, had do definite ideas of any number over five; and experienced teachers are well aware that, in the case of pupils accustomed to depend on the mere verbal memory of the words which represent numbers, and unprovided with a firm basis of actual observation of palpable objects, and the personal knowledge which such experience gives, there is an obstinate difficulty in forming definite and distinct conceptions of numbers, which resembles, too nearly, the confusion and helplessness of mind felt by those unfortunate islanders, in their attempts to transcend the limits of their terminal number, five.

Most of the early arithmetical operations of very young pupils, should consist in handling and counting visible objects, in enumerating marks, in grouping objects and marks, in numbers gradually progressive, from the smallest to the largest in amount; so as to secure expertness and promptness in the process of addition, in varied forms. Successive exercises should follow in multiplication, in subtraction, and division, all performed, day after day, on visible objects handled, and on marks expressly made for such purposes of training, before the purely mental processes of arithmetic are attempted on abstract numbers, even of the smallest groups. A prevalent error with teachers still continues to be that of merely exemplifying true teaching in such forms as have been mentioned, for a limited period, too limited to tell upon the habits of the mind. Long continued training alone, is adequate to the proper purposes of discipline, certainty and skill, namely, in forming combinations which must sometimes be both extensive and complicated. It is unreasonable to expect rapidity and expertness in the processes of mental arithmetic, without the preparatory discipline which results from the actual observation of the facts of number and combination, in objects presented to the senses. Such discipline alone, can yield that personal knowledge, and that conscious grasp of mind, which give clearness and certainty to the action of the intellect in arithmetical operations.

Natural objects : animated forms.—But it is not merely the contemplation of inanimate objects which the mind, in childhood, requires as a foundation for true perception and exact observation, or as a means of securing prompt and sustained attention. The liberal training of the senses, as a primary step in intellectual cultivation, extends the study of color, form, number, and sound, to the rich domain of animated nature, in the animal as well as the vegetable kingdom, and thus brings the vivid sympathy of the young heart with kindred life and motion to the aid of the opening intellect. From the *pebble*, the *shell*, the *flower*, and the *leaf*, the judicious mother and teacher will pass to the *insect*, the *bird*, the *quadruped*, and the *fish ;* and as their individualities and diversities are successively enumerated and dwelt upon, the details of color, form, and number, arrest and fix the volatile attention of the child, and win him to habits of close, minute, and exact observation.

Analysis and *classification*, the two great master powers for the acquisition of knowledge, in whatever direction, are also thus called in to aid the progress of the young observer in his study of nature.

The tendency of the mind to *observe*, *compare*, *examine*, and *classify* whatever is submitted to its action, thus early encouraged and stimulated, becomes an habitual trait of the mental character, and tells, with powerful effect, on the intellectual progress of the individual, in the more abstract relations of *language* and of *mathematics*. It is a great error to suppose that, because of the intense pleasure which attends the study of natural objects, there is not a profound and rigorous discipline of mind attending the equally intense intellectual action which accompanies the pleasure. *Analytic examination* is one and the same process, whether it is directed to the component parts of a *plant* or of a *word*. Keen and penetrating attention, close, minute, and thoughtful observation, exhaustive analysis, systematic arrangement, and methodical classification, are equally indispensable in the one case as in the other. But in giving precedence to the study of the object, and postponing that of the word, we are obeying the ordination of the Creator, who has furnished the apparatus of the first stages of human development, in the natural objects which first solicit the attention of the child, by the attractions of beauty and pleasure.

Pictorial art.—Nor is it only by means of natural objects that the sense of sight contributes to the exercise and discipline of the perceptive intellect. Art, too, renders here a rich tribute to the resources of education. Models and pictures, and the humblest attempts to produce these, as repetitions of the mental impressions received from nature, give inexpressible delight to the susceptible and imitative spirit of childhood. Their effect is invaluable, in training the perceptive faculties to the keenest, closest, long-sustained action, without the sense of weariness or fatigue; and their inspiring and refreshing influence gives vivacity and force to the whole mind. The clear perception, fixed attention, watchful observation, and active exertion, which they both require and cherish, particularly when the child is permitted to attempt to produce imitative efforts of his own, in drawing or modelling, meet so successfully the craving of the young spirit for action and endeavor, that they become powerful aids to mental development. The working hand is thus brought to the aid of the active eye, as a test, at the same time, of its correctness of vision, which is proved by the degree of truthfulness in the delineation. This productive method of exercising the perceptive and executive faculties, yields to the child the peculiar delight of having achieved something palpable, as a proof of power, and is, meanwhile, working in his mind the silent effect which is to appear, in due season, in the symmetry and gracefulness of his handwriting, and the neatness of whatever he attempts, whether in plan or execution.

The ear: music.—The varied world of sound, comprising *music* and *speech*, is another wide field of culture to the intelligent mother and the elementary teacher. The extent to which the sense of sight may be cultivated, as regards precision and certainty and truth of action, is indicated in the perfection which is attained by the sculptor and the painter, whose copies of nature are, in some instances, so faithful, and so beautifully perfect, as to confer an immortality of fame upon their authors. But little notice, comparatively, is taken of the delicate susceptibility of the *ear*, in relation to the offices of culture. Yet no sense, not even that of sight itself, is capable of attaining to so high perfection by the aids of training and discipline. The innumerable minute distinctions of sound, which the performance of even a single piece of music, by a single performer, often requires; but, still more, the multitude which the composer of one of the master-pieces of harmony must be capable of recognizing, discriminating, and combining, with a measured exactness transcending all other efforts of perceptive intellect: these remind us, most impressively, of the extent and value of cultivation, when we recall the fact, that the performer and the composer commenced their artistic training on the common footing of all human beings, a percipient mind, and an organ capable of telegraphing to it the notes of the singing bird, the song of the mother or the nurse, or the artless strains of some juvenile performer on pipe or flute.

Speech.—We have yet another proof of the susceptibility of the ear to the influences of cultivation, when "the well trod stage," in the exhibition of a play of the 'myriad-minded' Shakspeare, displays in the voice of the skillful actor, the whole world of human passion, with its ever-varying tones, uttered in the language of poetic inspiration, now moulded by the serene influence of heavenly contemplation, as when Lorenzo speaks to Jessica, while they sit on the moonlit bank, of the "smallest orb which she beholds, still quiring to the young-eyed cherubim;" now breathing the deep tones of Hamlet, solemnly musing on the mysteries of life, and death, and destiny; now the hollow mutterings of conscious guilt from Macbeth, while meditating the murder from which he yet recoils; now the hoarse accents of remorse wrung from the bosom of him whose "offence is rank" with the blood of "a brother's murder;" now the scarce articulate horror of "false, fleeting, purjured Clarence;" the maddened scream of mingling grief and rage from the injured mother, Constance; the love raptures of the empassioned Romeo; the ringing laughter of Mercutio; or the torture of Othello, as he fluctuates from the ecstacies of overflowing love and joy, to the curses of hatred, the outbursts of grief, and the agonies of despair.

In all these forms the well trained actor, by the mastery of his artistic skill, exerts a power over the sympathies of his audience which far transcends the highest achievements of representative art in any other form. The arduous training to which the histrionic artist subjects his voice, in order to produce such effects, shows to what extent the cultivation of the ear may be carried. It is by the indications of this faithful, prompting monitor, that he guides every step of his vocal efforts, till he attains to those consummate effects of genius which, in some instances, have conferred on the individual a fame coëxtensive with the civilized world. Yet he who is, perhaps, thus renowned, commenced his early efforts, with the usual stumbling utterance of a school-boy.

Enunciation.—Passing from the higher sphere of music and poetry, in their influence on the cultivation of the intellect, through the medium of sense, we come to one of the most important stages of education, in the discipline of the voice for the useful purposes of speech, as dependent on accuracy of ear,—the only reliable guide to correct results. The unconscious freedom with which we utter thoughts in our native tongue, leaves all persons who are not advantageously trained by precept or example, exposed to the evils of incorrect habit, in utterance. The extensive prevalence, also, of corrupted usage, in the negligent practice of general society, increases the liability to error in the style of the individual. There was wisdom in the Roman maxim, that the nurses of children ought to be persons of correct habit, in enunciation. The influence of early example, is the most binding rule of speech, as the baffled and disappointed teacher, after all his endeavors, is often made to feel.

One early begun and long continued daily practice, in primary training, should consist in the careful, correct, and distinct *articulation* of the component elements of speech, as accomplished in our own language. These should, at first, be practiced with reference to *the exact sound of every letter of the alphabet*, singly and separately; afterwards they should be enunciated in the groups which constitute *syllables*, on a graduated progressive scale of difficulty, till every variety of combination can be uttered with perfect distinctness and perfect fluency; finally, *the pronunciation of words* should be practiced in a similar manner, till the style of the young learner is freed from all corrupt and local mannerism, and he is prepared to take his place among the cultivated in speech as well as thought, and, by his personal manner of expression, to evince the style of educated habit as preferable to that of vulgar negligence.

Elocution.—In the secondary and in the more advanced stages of education, the discipline of the ear should be extended, so as to embrace all the refining and highly intellectual influences of music and poetry, as combined in *elocution.*

Intellect, feeling, and imagination, are all inseparably united in the appropriate expression of sentiment, as embodied in the language of *oratory* and *poetry;* and their finest effects in utterance depend on a nice susceptibility of ear, which culture only can secure to full extent. Music and elocution, the most humanizing of all arts, prescribe the apparatus and the forms of training to which the ear should be subjected, through the whole course of education. In the analysis and the discrimination which vocal discipline demands, in the recognition which it secures of the almost infinitely diversified and ever varying character of tones, in their expression of intelligence or of emotion, there is an admirable discipline of intellect implied, which, though less formally displayed than in other modes of exercise, is not, on that account, the less effectual. Of the high *moral* value of the susceptibility which such training tends to cherish, it is not now the appropriate time to speak. We may advert to it under a subsequent head.

The subject of *healthful physical training* is not now under consideration; yet sensation, and consequent perception, are dependent on the condition of the organs of sense, and therefore of the whole corporeal frame, which must be in a healthy condition to secure the natural and true action of nerve and brain,—the apparatus of perceptive action in the intellect. The attentive and efficient cultivation of health should be regarded, not merely as a condition of intellectual life, but as the first step in the formation of intellectual character. The clear eye and the quick ear of health are highly intellectual in their tendencies, and are for ever detecting and offering material for the intellect to examine or explore. The dull organs of a morbid frame, on the contrary, are too torpid to respond to the awakening touch or beckoning invitation of nature, and leave the clouded intellect to sleep or to dream.

PROGRESSIVE CHARACTER OF THE PROPER DISCIPLINE OF THE PERCEPTIVE FACULTIES.

The varied exercises of eye and ear, as organs of sentient mind, should always, under the guiding management of the teacher, advance in intellectual character from stage to stage, so as to secure the benefits of a progressive discipline, commencing, indeed, at the threshold of sense, but ever tending more and more inward, till they become nearly inseparable from the action and character of pure intellect. They thus render the keen eye and the quick ear prompters to clear perception, fixed attention, penetrating observation, careful comparison, and discriminating judgment, and so conduct to consummate intelligence.

The teacher who works in intelligent coöperation with the constitution of the beings whose character it is his office to mould, is content to labor patiently in the field of *sensation*, as, at first, forming the sole ground on which he can rationally meet the dawning mind, with the hope to exert a genial and effectual influence on its development. He dwells long, accordingly, on the prominent outward characteristics of objects, as most accessible to the unpracticed faculties of infancy, as best adapted to elicit their activity, and tempt them forth to more and more energetic effort. He furnishes, with no sparing hand, the opportunities of intuition, in the abundance and variety of the objects which he presents to the senses. He selects these, however, with such judgment and skill that the young mind shall be incapable of regarding them with a mere vacant aspection or listless intuition, but, on the contrary, shall be made to feel that there is within them a soliciting power, a magnetic attraction, to which its own nature responds, and by which it is led on, from stage to stage, till it finds itself in possession of the mental treasures of clear perception and definite knowledge.

VOLUNTARY EXERCISE OF THE PERCEPTIVE FACULTIES, A CONDITION OF INTELLECTUAL DEVELOPMENT.

Attention as a voluntary act.—The teacher who recognizes the law of intellectual growth, is aware that, in adopting measures to aid the progressive unfolding of the perceptive faculties, he may trust largely to the mind's own instinctive and spontaneous tendencies to action, if only due provision is made for mental activity, by supplying the objects of sense which naturally invite and stimulate perception. But regarding the mind as a voluntary and self-directing agent, he knows that unless its own efficient coöperation is secured in the processes on which its energies are exerted, its activity will be ever tending to subside, or to degenerate into mechanical and unmeaning routine. The result, he is aware, must, in such circumstances, be a morbid intellectual inertness of habit, or a deceptive show of forced organic action, instead of the movements of mental life. His great endeavor, therefore, will be to succeed in evoking Attention,—that power of the mind which brings into vigorous and efficient activity the percipient intellect,—that power which, by its own innate force, impels and sustains perception, in whatever direction it is called to act, or in whatever process it is employed.

The customary definition of this power, or faculty, as *voluntary per-*

ception, suggests to the educator his true office in cultivating and developing it. It implies that he no longer restricts his efforts to presenting such objects as solicit and secure the mind's notice, by the law of natural instinct, but that, addressing himself to the principle of *volition*, he calls it forth, as a moving force, impelling the mental machinery from within, and enabling it to arrive at knowledge, by its own action. The true teacher never commits the error of resorting to the exercise of his own will, instead of that of his pupil, as the propelling power. He is aware that his success, as an educator, is to be measured, not by the force with which he can bring his own power of compulsion to bear on the faculties of his pupils, but by the intensity with which he can bring their mental energies into voluntary play, in processes which leave a *residuum* of living force, as a result on mental character. He knows well that no degree of exertion can command attention, by a mere act of will, at the moment; that, by the law of the mental constitution, a train of circumstances must be laid before the desired result can be ensured; that an exercise of will is not, in the natural analogies of mental action, a merely arbitrary act of self-determination; but that, on the contrary, *will* is solicited by *desire ;* a feeling or affection of the mind being the natural and necessary preliminary to volition; and that the intelligent guide of the intellectual powers must, therefore, appeal to *feeling*, as the natural and reliable prompter of the will. In other words, the educational process, rightly conducted, is so contrived as to create a desire to arrive at the given result, and proceeds upon that security for the action of will in determining the direction of the mind, and sustaining the exertion of its powers.

Trained under such influences, a disciplined attention is the sure fruit of culture; and power of attention is not unjustly termed the key which unlocks all the gates of knowledge, and secures an entrance to its innermost secrets of intelligence.

Attention, as a power or mode of intellectual action, regarded in connection with the cultivation of the perceptive faculties, requires the application of the various expedients by which it may be rendered *prompt*, *earnest*, *close*, and *continuous*, as the exigencies of subjects and of the mind may demand.

Promptness of attention.—Such results imply that the educator, as a skillful gymnasiarch in the arena of mind, trains it through every variety of evolution by which it may be rendered *quick* in movement, ever ready for instantaneous action, so as to secure that pliancy and versatility by which it can at once direct itself to its object, or relinquish one object or train of thought for another, when the moment for change has arrived, and pursue the object of its aim with whatever velocity of motion may be requisite to reach it, in due season.

Speed and despatch, however, not haste and hurry, should be the ends at which the teacher aims in all drilling processes. A wakeful and lively attention, ever on the alert for action, implies sound and healthful and invigorating training. A harassed and exhausted mind, dragged or driven along the path of exercise too arduous, or too long continued, can never yield the results of genuine discipline.

With very young pupils, especially, the obvious indication of nature is, make free use of *striking* and *attractive* objects, illustrations, and remarks. One object at a time; words few and well chosen; no lagging or drawling on the part of either pupil or teacher, yet no hurry, no impatience, no impetuosity; proceeding smoothly and swiftly, but quietly and gently in all movements; yet sometimes, for the purpose of arresting attention, adopting the grateful surprise of a sudden change, briskly executed:—these are the characteristics of skillful and genial training, such as quickens the life power of intellect.

Earnestness of attention.—The power of *earnest* attention is another trait of mental habit to which the successful teacher directs his endeavors, as an invaluable attainment to be secured, through his agency, by his pupils. To this end, he avoids carefully all exercises not interesting or inviting to the young mind. *Objects, pictures, penetrating questions, vigorous exertion*, in varied forms, for mind and body,—strenuous endeavor called forth, at intervals, to cope with *difficulties, interesting facts* stated, or stories told,—the wonders of nature and of art exhibited, interesting *conversation* maintained, in which the pupils interchange thoughts with the teacher, *word-pictures* of peculiar power and beauty, selected from the poets, early attempts at *drawing*, exercises in *planning* and *building*, tangible illustrations in architecture, masonry, carpentry, or joiner-work, in juvenile style, for hours of recreation, the *analysis of plants*, the tracing of the *anatomy* of animal forms, in specimens of *insect* organization, in the osseous construction of *birds, fishes, reptiles*, &c.; all lessons made, as far as practicable, matter of *active work*, rather than merely passive attention; the ceaseless use of the *slate*, the *pencil*, and the *blackboard*, in recording, repeating, and illustrating every thing which admits of such forms of expression; these, and every other resort which ingenuity can invent, are all required in the exigencies of actual teaching.

Earnest attention and strenuous application, on the part of pupils, are the natural result and unfailing reward of the teacher's own facility and skill in devising and executing inspiring models of whatever he would have his pupils execute. The efficacy of his own ear, eye, and hand, secured by his own self-culture, is the only guaranty of his success, as a faithful trainer of the perceptive faculties. The general introduction of music and drawing, now in progress in all well-taught schools, together with the increasing attention given to elementary lessons in botany and mineralogy, is opening a highly beneficial course of discipline for the young mind, in whatever concerns the power of earnest and effective attention, as an attribute of intellectual character.

Closeness of attention.—The thorough discipline of attention, however, as the directing force of the perceptive faculties, implies that it is not only rendered prompt and earnest in action, but *close* and *minute* in its application. A faithful *analysis* is conditioned, in all departments of study, on a clear and distinct perception of *every particular.* Nothing must be suffered to escape notice. No analysis can be complete that is not exhaustive, to the extent of its object. Close and minute inspection is indispensable for the exact observation of many of the most instructive and the most beautiful of the details of nature, in the forms of animal and vegetable life,—for the successful watching of the processes of chemistry,—for forming exact estimations of quantity and number,—for tracing the diversities of even inanimate form, the delicate gradations of color, the minutest difference of sound and form, in the details of language, together with all the nicer distinctions, and discriminations of thought, when embodied in words, for the purposes of communication.

To secure these results, we are again directed to the early and effectual training of the perceptive faculties on the objects of nature, as the first step in the true education of the mind. The minutest point of form in the structure of leaf or blossom, the child traces with delight; and this native tendency of mental action, extended in its range of objects, and confirmed by the law of habit, becomes not only a source of intellectual enjoyment, but of conscious power and ultimate success, in all investigations, not merely of nature and external objects, but, by the inevitable law of analogy, in every department of research on which the intellect is competent to enter. The power of close attention, sharpened by judicious early training of the perceptive faculties, attains in due season, to consummate certainty and success in those processes of minute analysis which are, in many instances, the crowning glories of science.

No contrast can be more striking than that exhibited in the two cases of neglect and culture, in this relation of mental action. On the one hand, we have the loose, superficial, imperfect attention, which glides listlessly over the surface of things, without note, and consequently without knowledge; on the other we see an acute, keen, penetrating, searching inspection, which nothing escapes,—a mind whose knowledge is exact and complete, whose information is the result of narrowly examined and well ascertained particulars.

The intelligent teacher, knowing that the keenest exercises of discriminating judgment are, by the law of mental constitution and habit, not unfrequently dependent on the close examination of details, on the power of tracing and detecting the minutest shades of difference in objects and their component parts, leads his pupils, by the closeness of his questioning, to follow the minutest ramifications of diversity, amid apparent similarity, in the objects which he uses as instruments for sharpening their perceptions to the keenest inspection of every feature which is accessible to the discernment of sense. Beyond this point he passes to the use of the microscope, one of the most valuable implements ever devised as an aid to the processes of human culture. A cheap instrument of this description, in the hands of an attentive teacher, has a power which no degree of mental inertia can resist. It has been known to convert, in a few days, a whole school of uncultivated, thoughtless, turbulent children into an attentive, thoughtful, inquiring, docile, and orderly company of little students of nature.

A few minutes occupied daily in observing and tracing the forms of objects, in detail, is, in addition to its ultimate effects on mental habit, of the greatest service in the humble relations of alphabetic teaching. A ground work is thus laid for the accurate recognition of the elements of form combined in the visible shapes of printed and written characters, and a surer and more rapid, because a more intelligent, progress secured, as regards the accuracy of the eye in recognizing, or of the hand in repeating the lines, angles, and curves, which constitute the complex forms of letters. Accustomed to the close and minute analysis of form on visible objects of different sorts, the child, if permitted to treat his alphabetic characters in a similar way, takes delight in detecting and naming their constituent parts; and, particularly, when he is permitted to try to delineate them for himself, and thus, as it were, bring them under a kind of ideal subjection to his power.

The discipline of particular observation and searching attention, early secured, becomes, in due season, a complete guaranty for the correct and successful performance of the various gradations of mathematical problems in which a well trained and exact attention is required, whether for the relations of form or those of numbers; and throughout the successive stages of education, in all its departments.

The well trained mind becomes ultimately like the thoroughly magnetized instrument, which leaves no stray particles of the steel-filings scattered abroad, but agglomerates them every one to itself; with a certainty which renders the act no unfitting analogy for illustrating the universal law of gravitation.

Tenacity of attention.—Having used his best endeavors to render the faculty of attention prompt, earnest, and close, in its action, as the guide of the perceptive faculties, the teacher has yet another character to stamp upon it. He would have it not only quick and vivid, and searching, but *tenacious* and *persistent.* From an element volatile, fluctuating, and superficial, in its first manifestations, he would have it become, at length, a power fixed, and steadfast, and unfailing. Patiently training it through its incipient stage of short, feeble flights, he inures it to lengthened excursions and sustained exertions, such as all valuable mental attainments demand. Here, again, Nature comes to his aid, furnishing him liberally not only with numerous instruments of discipline in her manifold forms, as objects, individually, attractive and interesting, but with those *complexities* of shape, and color, and number, those *organic relations,* and *organic contrivances,* those *compound bodies,* those *intricate combinations of elements and processes,* which all require not only an earnest and close, but a long-sustained, unflagging attention, as the only condition of faithful and exact observation and accurate knowledge.

The intelligent teacher watches carefully the progressive development of his pupil's power of attention, and exercises it according to the increasing force and firmness of its grasp, so as to secure a perpetually *growing power of retention,* through all the successive exercises which he contrives for its discipline, on *natural and artificial forms,* their various *combinations, numbers, powers, and characteristics,* of whatever denomination in the vocabularies of science and art.

Regarding attention as the master power in the grasp of the perceptive faculties, he values, most of all, its strength and retentiveness, its ability to maintain an unbroken sequence of activity, such as not unfrequently demands the incitement of the most earnest desire to arrive at the wished for result, and produce, in turn, the most resolute determination of the will to persevere in action till the result is mastered.

Here, again, the teacher finds his best resort in the objects and processes of nature; unwearied attention is in no way so effectually secured, without undue or fatiguing exertion, as in analyzing and inspecting the various *parts* of *plants,* or the *anatomical mechanism* of animal forms, and, more particularly, of insects. While no humane or enlightened teacher would ever propose even one half hour of unbroken attention, on the part of very young pupils, twice that time may safely and advantageously pass in the suggestive questions of the teacher, and the ready answers of the pupils, during the examination of a single specimen of the productions of nature. In such circumstances, instruction takes its best form,—that of interesting *conversation;* and time flies only too fast for both parties in the exercise. Another sustained effort of attention may, by a judicious change in the form of mental action, be as easily secured by permitting the pupil to make such attempt as he can at *delineating*, in detail, the parts of the object which he has been contemplating; still another may be obtained by permitting him to describe in *words*, and at full length, what he has observed; and even the giant Despair of "composition" may be conquered by allowing the pupil to write his description.

Such processes prepare the young student in due season, for those arduous and unflagging exertions of attention by which he ultimately succeeds in solving lengthened and complicated problems in mathematics, disentangling long and inverted sentences by tracing the grammatical relations of their parts, and following, with patient assiduity, every step in extended and abstruse processes of reasoning on subjects more purely mental in their character.

The teacher who would merit the rank of an educator, and who would render all his processes of instruction not merely didactic but disciplinary, can never be too careful to accustom himself to survey the whole field of human culture in its completeness; to keep ever before his own mind the strict unity of the principle of intelligence, the analogy and cotendency of its various modes of action, and the identity of their results in the enlarging and quickening of its powers, and the strengthening of its grasp, on whatever subject it may be called to fasten. Philosophical writers, of high repute, have, sometimes, in their zealous advocacy of the value of their special studies, as instruments of mental discipline, been led greatly to underrate the disciplinary influence of all intellectual training connected with the observation and study of nature. They seem to have overlooked the fact that quick, acute, penetrating, close, persevering attention is one and the same priceless attainment, whether exhibited in the examination of an external object or in the investigation of the most abstruse of subjects that can be submitted to the action of human intellect.

The experienced and observing teacher knows well that his students who excel in the exercises prescribed in the departments of logic and metaphysics are those whose faculties have been most thoroughly disciplined in the processes of analysis, comparison, and classification, of induction and deduction, applied to the study of natural objects, under the guidance of mathematical and physical science. The materials on which the mind works in each of these great groups of subjects are undoubtedly wholly different; but its action is virtually the same in both—attention leading to discernment, discernment to fact or to truth.

The student who is thus trained in the true unity of his intellectual being, issues from the preparatory sphere of education well prepared to meet the exigences of actual life, whether these present themselves in the form of intelligent and prompt activity, or in that of rigid investigation and profound research.

NATURAL CONNECTION OF THE PERCEPTIVE AND THE REFLECTIVE FACULTIES.

To enable his pupils to extend the exercise of *attention* into that of continued *observation*, is the great aim of the teacher, who works intelligently on the material of mind, with a view to elicit power of thought. As far as the discipline of the perceptive faculties extends, the end of culture is to create an *observing* mind; from which, in the beautifully perfect arrangements of the great Author of intelligence, spring, in succession, a *reasoning* and a *reflecting* mind. The latter, however, can never be obtained without due obedience to the Creator's law of succession, in the development of intellect. The materials of reason and reflection lie, to a great extent, though not exclusively, in the field of observation; and, a regard to the law of natural and healthy development, therefore, induces the teacher to look carefully to the first steps of his procedure in the processes of cultivation. Having used his best endeavors to vivify and invigorate the power of attention, by all appropriate means and appliances, he proceeds to the use of every genial method of confirming the tendency of the mind to maintain that faculty in *habitual action;* to stamp on the intellect, as a characteristic trait, an inquisitive and appropriating spirit, which examines and searches into all things within its sphere, aggregates their riches to itself, and ever comes home laden with results for the exercise of powers and faculties yet greater than itself; and, to which it is ordained to minister. It is thus that the mind becomes the delighted and conscious agent in its own advancement.

PROCESSES BY WHICH THE HABIT OF OBSERVATION IS SECURED.

The frequent solicitation of attention, by the presentation of attractive objects, would, of itself, as we see in Nature's unaided training of the savage, provoke a tendency to observe and to inquire. But, the action of the intelligent teacher, in aid of Nature, and in obedience to her dictation, is founded on a law of moral certainty, derived from the study of the laws of mental action. Understanding and relying on the susceptibility of the mind to the influence of the objects by which it is surrounded, and the perfect adaptation of these objects to that end; and, aided, no less effectually, by that inward thirst for knowledge, that burning desire to observe and understand, which actuates the young mind itself, the enlightened teacher knows he has but to attract *attention* to the object which he wishes to employ as a material in the fabric of knowledge. Attention gained, secures *perception;* if the object is properly selected, and skillfully handled.

The volatility of attention in the immature mind, which, if unguarded, tends to mental dissipation and superficial observation, the teacher counteracts by genial measures, adapted to arrest and fix this subtle element of mental power, and carry it successfully forward, from step to step in observation, till the end in view in investigation is attained. The successive steps of the mind's progress, under the guidance of a skillful instructor, in endeavoring to arrive at the result of true perception, exact observation, and complete knowledge, are suggestively indicated in the process of investigating the structure of any visible object, and naturally present themselves in the following order: *examination, analysis, inspection;* aided by *interrogation, direction,* and *information,* and extended successively to the more complex processes of *comparison* and *classification.*

Examination, as a Process in Intellectual Training.—In the absence of the prompting and directing power of genial culture, it is true, perhaps, that most of our race are permitted to fill the measure of their days without one definite or quickening thought of the objects by which they are surrounded for a life-time. The peasant boy, who, of all human beings, is the most favorably situated for the contemplation and intelligent study of nature, seldom experiences the friendly aid of a suggestive question, that might lead him to appreciate the elements of intellectual wealth, in which the field of his daily labor abounds. Education has given him the ability to compute his wages, to read, or to sign a receipt; and, thus to meet the humble demands of his animal subsistence. It may even have afforded him some formal instruction in grammar or geography. But, it has not even hinted to him that, in "herb, tree, fruit, flower, glistering with dew," there are wonders of skill, and beauty, and power, fitted to fill his soul with delight, and to exalt him to a higher intelligence; that, in the bud, as it opens in spring, in the expanded blossom of summer, in the tinted leaf of autumn, in the shell which he picks up from the sand of the brook, in the very pebble which he "turns with his share, and treads upon," there are offered to his mind whole volumes of the richest knowledge, which the study of a life-time cannot exhaust.

An eloquent American writer, speaking of the advancement of education, says: "The time may come when the teacher will take his pupil by the hand, and lead him by the running streams, and teach him all the principles of Science, as she comes from her Maker." The teacher is here rightfully represented as fulfilling, in his humble sphere of duty, the highest offices of philanthropy and of religion. Such is the teacher's noble and beneficent function, in favoring circumstances; yet, not less when, yielding to the exigencies of life, he is confined within the walls of his school-room, but brings in Nature's apparatus from without, to give life, and meaning, and efficacy to his instructions, and win the young mind to the earnest and devoted study of the works of the Creator.

Intellectual Effects Resulting from the Examination of Objects.— The zealous teacher, working with such light shed upon his labors, knows that, in presenting a product of Nature to the eye, he is presenting a germ of thought to the mind, which, under his skillful management, shall duly unfold, in leaf, and blossom, and ultimate fruit. He knows that, in the absence of a guiding suggestion, his young pupil may have looked a thousand times on that leaf, as a thing which did not concern him; on the shell, as only something queer; on the pebble, as an unintelligible intruder, perhaps, on his personal comfort; on the flower, as something pretty, that his sisters are fond of; on the fruit, as a sufficiently satisfactory morsel for his palate; and, that thus, in the great universal hall of learning, stored with library and apparatus, the orphaned mind may have sauntered away the precious hours of early life, without having been induced to study a single lesson, or engage in a single exercise. All this the teacher is well aware of; but, he knows, too, the hidden life and power that lie wrapped up in the little object with which, as a specimen from Nature's cabinet, he proceeds to magnetize the sentient intellects before him. He knows that, as surely as these susceptible beings are brought near enough to come within the range of action, they fall under the spell of its power, are charmed to rapt attention, and carried on, in wondering and delighted observation, till they are finally arrested by the grateful surprise of conscious knowledge, and advanced intelligence.

Is it a plant which forms the subject of the lesson he would give? He has but, by a striking question, to break the crust of habituation, which has blunted the perception of his pupils, and hinders their mental vision. He has but to ask them to *describe* its parts, in detail, as he holds it up before them, and he has gained the grand preliminary condition of effective perception,—attentive *examination.* As the description extends its ramifications, the weed, which had been a thousand times trodden under foot, without a thought of its nature or construction, becomes an eloquent expositor of Creative mechanism and life; its parts become organs and channels of vitality,—a wondrous laboratory of chemical elements and action; the individual object becomes a member of a family, each of whom has his life and his history, his birth, growth, maturity, and decay; leaving, as the moral of his story, the parting suggestive question, riveted in the wondering mind, "Am I not wonderfully made?"

One such result,—and the more common the object which secures it the better,—one such result is sufficient to ensure a repetition of itself, in a thousand other instances. The ice of indifference is broken; and the observer may now see clearly, through the transparant water, the many-formed beautiful pebbles on the sandy bed of the stream. The time and trouble of examination, it is now found, are amply repaid in the conscious pleasure of intelligent observation; and, they are no longer begrudged. The mind has now become desirous to observe, examine, and explore. It has already set out on a career which, were all educators intelligent agents, would be ceaseless to all to whose advancement it is their part to minister.

Example of a Successful Teacher.—A most striking exemplification, in this respect, of successful instruction, was often exhibited in the devoted labors of the late Josiah Holbrook, who, although the very extent of some of his plans for the advancement of popular education may have rendered their execution difficult for the endeavors of an individual, yet was uniformly successful in his attempts to introduce the study of natural objects, as a part of early education in all schools. Trusting to the power of attraction and development latent within a stone, picked up by the wayside, he would enter a school, with no other apparatus of instruction provided; and, holding up the familiar object, would succeed, by means of a few simple but skillfully-put questions, in creating an earnest desire in his young audience to be permitted to look more closely at the object. He would then hand it to them, and have it passed from one to another.

Having thus secured the preliminary advantage of *earnest attention*, his next step would be, by a few more brief questions, to lead his little class to a close and *careful examination* of the specimen submitted to their notice; and, to their surprise and delight, to enable them to see that the bit of granite in their hands,—although but one stone to the eye, at first sight,—actually contained portions of three different kinds of rock. He would then give his pupils an unpretending but thoroughly effective exercise in *analysis*, by inducing them to point out distinctly each component element, apart, and to describe, at the moment of doing so, its points of difference from the others, by which the eye might recognize and the mind distinguish it.

Another stage, in the well-planned lessons of this true teacher, would lead to a yet closer *inspection* of the component elements in the object of observation, by the presentation of separate specimens of each, in *comparison* with the smaller portions of them perceptible in the stone. The transparency of the *mica*, its laminated form, its beauty to the eye, would all come up in turn, for due notice and remark; nor would its peculiar adaptation to several of the uses and conveniences of life be overlooked. The *quartz* element, with its beautiful crystalline aspect and forms, its value as a gem, its wide diffusion in the granular condition, its presence and its effects in the composition of rocks and soils,—all briefly exemplified and enumerated,—would form a copious subject of instruction and delight. The *feldspar*, too, with its creamy tint and block-like configuration, and its valuable uses in the hands of the potter and the dentist, would come in for its share of delighted attention and studious observation.

Here was the true office of instruction faithfully exemplified. Here was genuine mental activity, on the part of the pupil; and, here were its natural effects,—vigorous, healthy expansion and development, together with the pure, natural, and salutary pleasure of intellectual exercise,—more dear to the child than even his favorite play. Here, too, were effectually secured the moral influences of culture, docility, order, regularity, voluntary attention and application, gratitude to the instructor for personal favor and benefit consciously received, an earnest desire implanted for the true and enduring pleasures which spring from knowledge, and the first steps taken in the life-long pursuit of science. The teacher, having put himself into a true living relation to the mental constitution of his pupils, could, without delaying for formal calls to order or attention, proceed, at once, to the benign office of his vocation, as the guide of the young mind. By a wise preventive method,—not by authority, rule, or penalty,—he secured the devoted attention and good order of his pupils, and, not less, their own happiness, their sympathy with him, at the moment, and their habitual reverence for him, as the living source of knowledge.

After one lesson, such as has been described, the substantial and durable effect resulting from it was usually perceptible in the fact that, on the dismission of the school, the juvenile members of Mr. Holbrook's audience would be found resorting to whatever place they thought likely to furnish them with specimens such as he had exhibited in his lesson. This was almost universally the case when the lesson happened to be given in a rural region, where objects of the kind in question were easily obtained. But, not less zeal for collecting specimens for juvenile cabinets, would sometimes be manifested in the more confined sphere of city life, an instance of which it would be difficult for the writer to forget.

An eager group of little collectors were scrambling for specimens around the temporary shed of the stone-masons occupied in the erection of a public building. They were busily replenishing their pockets with such pieces as struck their fancy, and stopping now and then to compare specimens, or each to examine his own more closely. Drawing near to the juvenile company of geologists, as their heads were clubbed together in earnest inspection of a specimen, the observer heard one exclaim, "Well, I do not think it is the right kind. For, you know, Mr. Holbrook said the way to spell granite was not *g-r-a-n-i-t-e*, but '*mica, quartz*, and *feldspar*.' Now, there is not a bit of mica in any of these stones." The observer happened to know of Mr. Holbrook's visits to the school to which the boys belonged; and, as he saw that the little students had just found their way to the exact spot in investigation where Mr. H. would be glad to meet them, so as, by means of a little closer analysis, to enable them to detect the difference between granite and "sienite," he relieved their anxiety by telling them that they had better not throw away the pieces they had picked up, but carry them to the school-room, next morning, and ask Mr. Holbrook to tell them why there was no mica in their specimens, and what those black specks were. One of the little explorers returned to his home, on the following day, to tell, with a face all radiant with intelligence, about the quarries of Syene, in Egypt, the quarries of Quincy, and those of the "Granite" State, and even to go into some details, in which neither of his parents was sufficiently versed in science to follow him satisfactorily.

Analysis, in its Connection with the Discipline of the Perceptive Faculties.—An eminent writer has truly said that a dwarf, behind his steam-engine, may remove mountains. Analysis is the correspondent power of the intellect. It is the grand instrument in all the operations of the perceptive faculties. It is observation working scientifically; and, of all the implements of science, it is the keenest in its edge, the truest in its action, and the surest in the results which it attains. It is the key to knowledge, in all departments of intelligence; and, perfection in its processes is the crown of glory on the head of him who stands foremost in the field of scientific research. Education, as the power which trains and forms the mental habits, has no higher boon which it can confer, as the result of years of practice and discipline.

Valuable, however, as this process is, education, in the history of the past, could lay but slight claims to the merit of having formed the mental habits which it implies; since the means and opportunities of analytic intellection were withheld or neglected, to a very great extent, in consequence of the omission to provide the requisite objects and exercises for the discipline of the perceptive faculties. Education, while it consisted chiefly in arbitrary forms of exercise on abstract principles, connected with formulas in language and in number, drawn from the sciences of grammar and arithmetic, precluded the exercise of perception, by causing the learner to assume, instead of investigating, the primary facts of language and of number. At the present day, we obey the law of inductive procedure, and substitute personal observation and distinct perception for wide assumption and broad assertion. This is true of, at least, the modes and methods of all who profess to teach philosophically, as not mere instructors, but educators of the mind. Still, there remains much to be done with reference to the early direction and training of the intellectual faculties, so as to ensure the selection and presentation of the proper materials on which the intellect should be exercised in the first stages of its course of discipline.

Analysis, as a process of observant mind, implies the presence of objects which, by its solvent power, it is to reduce to component elements; and, as the real object, the fact, the actual relation, precede, in the order of nature and development, the ideal image, the intellectual abstraction, the logical deduction, early education in its primary operations, should conform to this law of order and of progress, and, in prescribing its first forms of exercise and discipline, should obviously draw its materials from the external universe of palpable realities, and not from the internal world of pure thought, in which the young mind possesses so little conscious power. Nor is it well for the mind that the habit of analytical observation and study, so indispensable to its successful action, in all forms of acquisitive exercise, should be deferred to the later stages of intellectual culture. Facility in analysis, acquired by practice on the accessible forms and relations of external objects, is easily transferred, by analogy, to the arithmetical exercise of resolving complicated numbers into their simpler constituent groups; or, the grammatical one of reducing a perplexing period to its primary elements, and these, in turn, to their component parts.

Progress in mathematical science and linguistic study, would be much surer and more rapid, if, instead of being demanded of the earlier stages of mental progress, it were postponed to a period subsequent to that of analytical exercise, practised, for years, on objects perceptible to the senses.

Analysis, as the systematic process of examination, is one and the same thing, in whatever direction it is applied; its power as an instrument of discipline, is as fully felt in investigating the structure of a plant as that of a sentence; and, the intelligent teacher, while superintending such a process, will feel the same weight of obligation resting on him in the one case as in the other. He will, accordingly, be watchful over the manner in which the process is conducted, that it be not superficial, or hasty, or partial, but thorough-going, deliberate, and exhaustive, as far as it ought to extend; and, that it be furnished with faithful expression, or record, at every step of its progress. It is thus only that the indispensable broad line of distinction can be drawn, which gives certainty to knowledge, by separating what has been examined from what has not been, and measures what is known by what has been done.

Inspection, as a Disciplinary Process for the Perceptive Faculties. —When analysis has faithfully performed its peculiar task, and singled out for observation the very last component element in the object of investigation, there remains yet, to the attentive teacher, another stage of perceptive progress to be accomplished by his pupil, under the suggestive direction of a mind which has already traveled the path of knowledge. The searching *inspection of the individual elements* which compose a complex whole,—an inspection so minute, that each element may be described and defined in its distinctive unity of constitution and character, and, in the clearly traced relation which it bears to the whole, as well as in each of its own chief characteristics, or prominent features,—becomes, perhaps, in turn, an element in some wide-sweeping induction, for purposes of comparison and classification.

Elementary botany,—that which a young child is perfectly competent to study, and which requires but the seeing eye and the attentive mind, to examine and describe the different parts of a plant, or even a root, a stem, a bud, or a leaf,—abounds in the best of materials for exercise in close and minute examination of details. To render this process a tendency and a habit of his pupil's mind, is here the office of the educator. Yet, this is but one of the numerous resources of nature on which he may draw for the cultivation of the highest traits of intellectual skill and expertness, as attributes of the young minds, which it is his business to train to the highest pitch of mental power to which he can raise them.

In the examination of a plant, for example, he does not limit the attention of his pupils to the mere analysis of the whole into its parts. Every part, separately, he makes an object of distinct inspection and investigation, in every light in which observation or science enables him to hold it up. No feature of individual character is suffered to escape notice,—no detail, how minute soever it may be, in which it differs from, or resembles, a correspondent point of form or function, in another specimen of kindred character.

In lessons on animal life,—to use another example,—the juvenile student, under the charge of the watchful teacher, is directed to observe the fact, which minute inspection discloses, that, in one instance, where he would naturally, at first glance, think that he has seen two *feet;* he will actually discover, on closer inspection, two *hands;* that, in observing the figure of the chimpanzee, he has been contemplating neither biped nor quadruped, but a quadrumanous (four-handed) animal; and, that this distinction is founded chiefly on the careful examination of the member which he had been accustomed to call a *toe*, but which is, in reality, a *thumb*, designed to aid in the actions of grasping and climbing, which are so important to the animal's mode of life. The close inspection of one member thus becomes, for the time, the turning point on which the young student depends for the recognition of a grand distinction in nature, and for the true understanding and proper appreciation of the scientific term in which this distinction is recorded.

Interrogation, as an Instrument of Intellectual Discipline.—In the language of general writers on subjects connected with the experimental and tentative processes of science, man is said to *interrogate* nature. The figure is a most suggestive one to the teacher, with reference to his business and duties. It presents man in his appropriate attitude of an attentive and docile child of Nature, inquiring trustfully of her concerning the causes which lie too deep for mere intuition, but which her maternal spirit is ever ready to reveal to earnest desire and faithful endeavor. The human parent and the teacher stand, to the young mind, in the same oracular relation, as expounders and interpreters of the great volume of creation. But, how seldom is the inquiring spirit of childhood encouraged to avail itself of its lawful provision for the furnishing of that knowledge which it consciously craves, as the sustenance of its life! How seldom does the teacher feel the full force of the obligation which the inquisitive habits of childhood lay upon him, to encourage the spirit of curiosity which prompts the many questions of the child! How seldom does he feel that his business is to incite, and stimulate, and prompt, and enliven, in every way possible to him, this primary instinct, which impels the mind toward the goal of knowledge! How seldom does he enter into the spirit of the wise suggestion of the poet; and, even when in the very act of feeding the intellectual appetite, so contrive as "by giving" to "make it ask!"

Book Questions.—The teacher is not usually so remiss in regard to the importance of interrogation, as a stimulus to intelligence, so far as concerns his own resort to that process. Far from it! He knows its value, as a pointer or guide-post, to definite results. Nor are there wanting instructors so reliant on interrogatory forms, and so distrustful of their own power to devise them, that they conduct the whole business of a lesson, following literally the numerous questions printed on the page of the text-book. Such questions, it is true, are not to be despised and rejected in the wholesale style in which they are sometimes disposed of by the young and sanguine teacher, who has just begun to see their inadequacy to the purposes and wants of personal instruction. The printed question, even when extended to minutiæ, may be rendered very serviceable to the formation of habits of faithful application and close study, as well as accurate recapitulation; if the young student is directed to make use of it as a test, in regard to the exactness of his preparation for a personal examination on the subject of his lesson; if he is duly trained not to regard the printed question as merely the teacher's part in a verbatim mechanical dialogue between the master and himself, in which the last word in the sentence of the one speaker forms the literal "cue" to the first word in that of the other; but, as a criterion of his knowledge of the subjects, as a friendly intimation that, if he can not furnish an answer to the question before him, he is so far deficient in his preparation to give intelligently an account of the part of the subject to which the question refers.

Children's Questions.—But, it would be more to the purpose of the young teacher's business, if,—instead of the printed aid offered to him in what should be his own part of a lesson, and which, if he respects his own mind, he will draw only from his own resources, according to the needs of the pupil,—the page of the text-book abounded, rather, in the questions which *children* would like to ask, for their personal information. The judicious instructor will always make free use of interrogation, as a means of ascertaining or aiding the degree of his pupil's intelligence. But, he will not overlook the fact that this process, like that of the printer, in taking his proof impression, is to certify a result,—not to create it. The questions which the child is permitted or encouraged to put to his teacher, are, often, the sole means by which the former is enabled to "set up" accurately in his mind the facts of the lesson required. The number and the closeness of these questions become, further, the expression and evidence of the interest which the pupil takes in the lesson. To the teacher who possesses the patient and sympathizing spirit of his office, these questionings come gratefully to his ear, even when they betray the "blank misgivings of a creature wandering in worlds not realized." It is then that he is most impressively reminded of the true nature of his work, as an intellectual guide and conductor. He is ever careful, therefore, to provoke, rather than repress, interrogation; and, even so to frame his own questions that they shall serve to call forth fresh inquiries from his pupils.

The appropriate discipline of the perceptive faculties, depending, as it does, on the frequent presentation of objects of sense, with a view to win attention, and secure exact observation, implies that the teacher resorts, on all occasions, to close questioning, as the suggestive process by which the pupil is induced to use his own perceptive power, to rely on the fidelity of his own observation. and thus to acquire a knowledge which is substantial and thorough-going. But, it is not less true that, in proportion to the pupil's interest in the efforts which he makes, and the progressive steps which he takes in every process, his very attainments will be suggesting and prompting further inquiries, for his future guidance. The spirit and intelligence, as well as the pleasure, therefore, with which he proceeds in his work, will depend, to a great extent, on the consciousness that he is not working in the dark.

Mode of Answering Questions.—The answer to the pupil's questions, however, the true teacher is well aware, is not always to come from the lips of the instructor. It is often left intentionally to be the fruit of the learner's further efforts and closer examination. To withhold an answer to the most eager question, is sometimes a truer kindness than to give it. The ripe and perfect fruit of knowledge must sometimes, like that of the tree, be patiently waited for, and wrought for.

Leading Questions.—The wise teacher, however, will know as well when to put the skillful leading question, which does not supersede, but rather calls forth the activity of the pupil's mind. The leading question, though unlawful at the bar, is, under the management of the prudent teacher, the very turning point, in some cases, which decides whether he is "apt to teach," as an intelligent guide to the results of actual knowledge and true discipline.

Direction and Information, as Didactic Processes Connected with the Exercise and Discipline of the Perceptive Faculties.—The answers given by a judicious teacher to the questions of his pupils will often consist in references to the sources of information, rather than in direct replies. In the study of natural objects, it is peculiarly important that the pupil should see, and think, and judge, and discover, for himself. To such training in self-reliance and self-help, the exercise of the perceptive faculties on the details of form in animal, plant, and mineral, is preëminently adapted. The embarrassing complexity and intricacy, and the baffling abstruseness, and the perplexing obscurity, which sometimes characterize other subjects of investigation, and which call so loudly for the teacher's frequent aid to his pupil, do not exist here. The simplicity and the beauty of nature's products, invite and attract attention; and, every successive stage of examination leads unconsciously to another. The teacher has but to indicate and to prompt, and thus leave the mind the rich satisfaction of achieving its own progress. He is not tempted to fall into the besetting sin of instruction,—that of anticipating, and assuming, and asserting, and so quenching the mind's healthful thirst by the lukewarm distillations of precept and rule, instead of leaving it to refresh itself by drinking at the cool, vivifying fountain-head of original observation.

An eminent naturalist once gave a very impressive lesson in the art of teaching to one who is himself, professionally, an instructor. The question proposed to the savant was, "How may we distinguish snakes which are venomous from those which are not?" "Come into my study," was the answer, "and I will place before you some of each kind; and, then, by examining, you can see for yourself." It is thus the true teacher proceeds with his pupils: it is thus he gives certainty to knowledge, and clearness and vigor to the mental faculties.

As a guide and director of the mind, the intelligent instructor points his pupils to the sources from which he himself obtained information, and thus admits them to the honor of partnership with him in investigation and accumulation. Teacher and student thus become allied by friendly participation in the same pursuits; and, a high, though unostentatious, moral effect is blended with the cultivation and enjoyment of intellect.

The teacher, however, who thus wisely throws his pupils, as far as practicable on their own resources, does not thereby preclude the ample furnishing of all needed information, which intelligent appreciation and successful application may require. He will, on the contrary, take pleasure in disclosing facts, in tracing analogies, and furnishing explanations, when these serve to give additional value and attraction to the theme of his instructions. He will thus contrive, at once, to satisfy and to stimulate the mind's natural craving for knowledge, and make every step of progress the foothold and the impulse to yet another. He will still be careful, however, even when imparting direct information, to confine it within those limits which shall leave a wide and inviting field for the pupil's own investigations, and secure his personal interest in future explorations, which may subserve the important purposes of acquisition, as connected with attainments in the various departments of education, or with those advances in science which may form a large part of his own conscious happiness, and contribute, ultimately, to the general diffusion of knowledge.

Comparison, as a Disciplinary Exercise of the Perceptive Faculties.—The unity of the intellect, as a principle in the human constitution, forbids any attempt at literal or exhaustive analysis, in the study of its diversified character and modes of action. In educational relations, more particularly, all attempts at the analytic observation of mental phenomena, for purposes of intelligent and healthful culture, must ever be regarded as merely analogical presentations and figurative expositions. The successive stages of mental development and discipline, in like manner, are incapable of being cut apart and separated by any dividing line of demarcation. On the contrary, they naturally blend into one another, with a closeness of connection, and a delicacy of shading, which does not admit of precise distinctions, or marked discriminations.

When we group, therefore, the various modes in which intellect manifests itself in action, and designate one of these groups by the term "perceptive," and another by the term "reflective," we recognize a distinction, with regard to which, even a superficial observer of the mind's activity, would not venture to say that it is not founded on an actual difference. Still, we should find it extremely difficult to lay down a precise line of demarcation, and say with certainty, in every instance, here terminates the perceptive, and here commences the reflective action of intellect. Thus, in assigning its place to the master faculty of intelligence, we should feel no hesitation in ranking *reason* among the reflective faculties. But, when this noble power descends, as has been so happily expressed, to the humble office of "judging according to sense," it necessarily partakes of the character of the class of faculties with which it mingles in action. It constitutes, thus, an element and a condition in *perception* itself; as is verified by the consequences of its absence, in the intellectual action of the insane person, who distinctly enough *perceives* the form of his friend, but, in the inexplicable aberration of reason, salutes him as a foreign ambassador, come to do him the honor of a visit, in consideration of his world-renowned skill in disentangling complicated questions in state policy.

Comparison combines, usually, an act of volition with the process of observation, directed to two or more objects, for the purpose of recognizing their unity or diversity of character; and, hence, is properly regarded as but the preliminary or introductory step to the act of *judgment*, which pronounces the case one of analogy or anomaly. It is not unusual, therefore, to class comparison as purely an act of judgment, or decisive reason; and, by its office, a *reflective* faculty. As a process of intellection, however, it obviously commences with the perceptive act of attentive *observation;* and, as a disciplinary and developing operation in mental culture, it falls under the special care of the educator, as an exercise in the early training and forming of intellectual habit.

Proper Rank of Comparison, as an Intellectual Process.—Regarded in connection with the study of natural objects, the act of comparison, is an exercise of the perceptive faculties, which, in the order of intelligence, is the immediate sequel to the processes of examination, analysis, and inspection. These, indeed, are but the legitimate preparatory stages for its wider mode of action, and higher offices in the sphere of intelligence. Yet, in its turn, it is but the humble ministration of intellect to the yet higher offices of *classification*, under the guidance of the master function of *induction*, which presides over all the varied forms of intellectual activity, connected with the observation and study of nature.

Intellectual Effects of the Discipline Resulting from the Exercise of Comparison.—Comparison, as a process of intelligence, commenced under the watchful eye of the teacher, on the objects of perception,—the only sure and firm ground of early mental development,—gives a certainty and a skill to the perceptive action of the mind, which tell, with sure effect, on all analogous operations of a more purely intellectual or even an abstract character, in later stages of education. The influence of the habit of careful and exact comparison, extends, with full effect, to the highest efforts of mature mind, in the most complicated and intricate relations of thought, in mathematics, in logic, and in language. Comparison, as the first step in the higher progress of the mind, when making its transition from the study of single objects to that of numbers, and grouping them, by their *analogies*, in *classes*, brings the intellect under the dominion of *order*, introduces it to the discipline of *method*, and ultimately rewards it by the recognition of *law*. *Principle* and *rule* then take charge of the intelligent mind; and, as "strong siding champions," beat down every barrier to its progress toward consummate knowledge.

Natural Objects peculiarly adapted to the purposes of Comparison, as a Disciplinary Exercise.—As means of discipline for the perceptive faculties, in various modes of comparison, the materials for practice, furnished in the different departments of nature, are peculiarly adapted to the great ends of education. Their mutual resemblances and contrasts, the prominent features of their correspondent forms, seem to solicit comparison and classification, as destined results of man's mental adaptation to the scene in which he moves, and which so abounds in objects of attractive interest,—the germs of intelligence, enveloped in consummate beauty, that they may lead to the conscious delights of knowledge.

By the introductory discipline resulting from the humble exercise of carefully comparing objects and their characteristic parts, the young mind receives its preparation for the scientific intelligence and the conscious pleasure with which it subsequently enters on the wide range of action afforded by the inviting analogies revealed in the study of comparative physiology and anatomy, and in all investigations to which science conducts, wherever exact classification and consummate knowledge are dependent on attentive and faithful comparison,—a condition equally indispensable, whether in collating the vestiges of past eras in the physical history of our globe, or those of language and of intellect, as revealed in the investigations of philology.

Classification, as an Exercise for the Discipline of the Perceptive Faculties.—This form of intellectual action,—which, in its various aspects, may be said to constitute and to consummate human knowledge, in whatever department we contemplate,—is the immediate sequel of the preceding act of mind, in collating the objects of observation, or their peculiar features and characteristics. The resemblances which comparison recognizes in objects, become the leading titles and significant designations of groups and classes. Intellect is thus freed from the burden of the endless and unsatisfactory task of wandering from object to object, in detail, without any conscious thread of connection or guidance, and without any suggestion of a definite end in view, in its wearisome mode of action. By the aid of classification, the chaos of disconnected individualities is converted into an orderly creation, where everything, as of old, is seen to exist "after his kind." Knowledge thus becomes a series of aggregated accumulations, arranged and labelled to the intellectual eye; and, investigation is rendered a rational and inviting pursuit,—directed by definite aims, and leading to satisfactory results.

Benefits of Classification, as an Intellectual Exercise.—By the process of classification, man is enabled to trace the successive footsteps of the Creator in the outward world, to recognize the grand law of universal order, and yield obedience to its dictates in his modes of mental action. The student of nature, pursuing his investigations in this spirit, is prepared, by successive illustrations of fact, to amplify his classifications into those wide inductions which are the glory of science, and which aid the intellect in accomplishing the vast generalizations for which its powers of comprehension and its ceaseless aspirations seem equally adapted.

The exercise of classification tends to create in the young mind the love of order and method. It is, in fact, a strictly logical discipline, resulting in the highest mental benefits, and preparing the heart for the influence of the most exalted moral principle. It belongs, however, as a process of mental culture, to a very early stage of intellectual progress, and begins appropriately with the first conscious steps of advancement in the observation and study of nature. The child, in Nature's great school, finds himself placed in a vast cabinet of specimens, which he takes a peculiar pleasure in examining, and from which, even when little aided by formal education, he draws, with delight, stores of personal knowledge, and the pure pleasure of the conscious activity which his spirit craves.

The objects of nature, as the results of a designing Mind, seem peculiarly adapted to the end of drawing forth the action of intellect and building up intellectual character in the human being. In no respect is this more true than with reference to the facilities furnished in the three great kingdoms of nature, for the purely intellectual processes of arranging and classifying the objects of observation. The young mind here finds itself placed in a sphere of order, in which every thing is arranged for the correspondent action of thought; in which every object invites to observation, and every group solicits a recognition of the principle of classification.

Early Training in Classification.—Furnished with such an apparatus for the purposes of instruction, the teacher has but to point suggestively to the successive classes of objects most easily accessible to the young learner in the great classified receptacles of earth, air, and water. He has but to encourage his pupil to collect, compare, and classify the various forms of mineral, plant, and animal, which lie within the range of his daily walks; or, even to deposit, in any convenient and suitable receptacle, groups of leaves of similar form, and to define the shape or the feature which, in his distribution of them, is made the ground of classification. The learner thus obtains a measure and a record of his progress in knowledge; and, the knowledge which he acquires, possesses a true and substantial character, which, in turn, affects that of his mind, giving it a taste for solid acquirements and genuine pleasures.

CULTIVATION OF THE EXPRESSIVE FACULTIES.

Introductory Observations.—The classification of the mental faculties under the designations of "perceptive," "expressive," and "reflective," was adopted in the preceding lecture of this series, as a convenient one for a survey of the human mind, with reference to the purposes of education. This classification, it was mentioned, could not be regarded as founded on lines of distinction which could be assumed as rigorously or literally exact; since its terms are properly but so many names for various states, acts, or operations of the mind,—itself one and the same in all.

Imperfect as such a classification must necessarily be, however, it enables us, by its distinctions, to trace more clearly and definitely the forms of mental action, and the power which the mind possesses of exerting itself in different modes; and it affords to the educator, when contemplating the intellectual capabilities of man with reference to the processes and effects of culture, the advantages of analysis and systematic examination, as aids to the prosecution of his inquiries.

Following the order of nature and of fact, when we trace the succession of action in the exercise of man's intellectual powers, as these are designated in the classification which we have adopted, we observe that, in the mature and deliberate use of the mental faculties, the habitual and normal succession is, (1.) *Observation*, (2.) *Reflection*, (3.) *Expression*. In the immature and susceptible condition of childhood and youth, however, the spontaneous activity and development of the communicative tendencies of the mind cause the action of the expressive faculties to precede that of the reflective; and to this law the order of education will properly correspond.

The perfect action and discipline of the power of expression, require, no doubt, all the aid derived from the maturity of reason and reflection, and, consequently, an advanced stage of intellectual culture. But, in the history of man's mental progress, under the guidance of natural laws, the educator perceives and recognizes in the young mind, an early necessity of utterance, or of expression in some form, as one of the divinely implanted instincts by which it is actuated, and which therefore becomes an indication to be obeyed in the plan and progress of culture.

The phenomena of the external world irresistibly impel the child to utter the emotions which they excite; and the judicious educator will always encourage the young observer to record them, long before the era of experience in which they become subjects of reflective thought or profound cogitation. To give consistency and effect, however, to the forms of expression,—whether for purposes of record or of discipline,—a certain degree of progress must have been attained in the exercise and development not only of the perceptive, but also of the reflective faculties;—a result inseparable, indeed,—as was mentioned in the preceding lecture,—from the right direction of the perceptive powers themselves. In this and in every other attempt to trace the order of mental development, we are always brought back to the grand primal truth that the mind is properly *one*, in all its action; we are reminded that this great fact is the basis of all true culture, and that the different intellectual *faculties*, as we term them, are but the varied phases or modes of action of the same subtle power.

As an introduction, accordingly, to the discussion of the principles which regulate the cultivation of the expressive faculties, as a department of intellectual education, our last lecture followed, to some extent, the necessary connection existing between the discipline of the perceptive faculties and the primary action of the reflective. With this preliminary preparation, we will now proceed, on the plan indicated in the first lecture of this series, to the study of the various forms of mental action which, in the figurative language unavoidable in all intellectual analysis and classification, may be termed the *expressive* faculties.

The plan proposed embraced, it will be recollected, the following prominent features:—(1.) an *enumeration* of each group of faculties, by its *modes*, or forms, *of action;* (2.) *the actuating principle*, or impelling force, of each group; (3.) the *tendency*, or habit, of action in each; (4.) the *result*, or issue, of such action; (5.) the *educational processes*, forms of exercise, or modes of culture, suggested by the four preceding considerations.

Following the order here mentioned, we commence with the

(I.) ENUMERATION OF THE EXPRESSIVE FACULTIES.

These may be grouped under the following designations:—Emotion, Imagination, Fancy, Imitation, Personation, Representation, Language, Taste.

Explanatory Remark.—To ascertain, with precision, what powers or attributes of the human being should be regarded as properly comprehended under the above denomination, the educator would do well, here as elsewhere, to advert to the primitive signification of the term which is employed to designate the class of faculties to which it is applied. At every step of his progress in the study of man as a being capable of systematic development, the teacher finds a guiding light perpetually emanating from the primary sense of the terms which constitute the nomenclature of intellectual philosophy, in its nalysis of the human faculties. These terms are often highly figurative, and hence peculiarly suggestive with reference whether to distinctness of classification, or to purposes of culture and development. In no case does this remark apply more forcibly than in the present. The term "expression," (*pressing out,*) implies, in the first instance, the existence of something *within*, which, under the action of a force, working whether from within or from without, is *pressed out*, and thus rendered external, palpable, or perceptible.

Referring this term to the phenomena of human experience, we derive, from its primary and figurative sense, the inference, or implication, that man is endued with the power of giving an external manifestation to his internal conditions of thought or feeling. The form of this manifestation may be that of attitudes and actions of the body, changes in the aspect of the countenance, effects on the tones of the voice, or efforts in the organs of articulation, and modifications of the accents of speech; it may appear in imitative acts, in suggestive graphic delineations, or in intelligible written characters. But in all cases, it is the *re*presentative *ex*pression (pressing *out*,) of what has been *im*pressed, or is *present*, *within*.—The inward working may be that of a feeling, an affection, an emotion, or a passion: it may be that of an impressive idea, or of a thought, an opinion, or a sentiment. But the result is invariably an outward effect, audible or visible.

Whatever power or faculty, therefore, has an agency in the process of thus giving an external manifestation to an internal mental condition, will be appropriately comprehended under the designation "expressive;" and the classification will be exhaustive and complete, if it include all those mental states, acts, or operations which give *form* to thought or feeling. The preceding enumeration of the expressive faculties, however, is intended to present only those which are prominently active in the ordinary conditions of humanity, and which are the principal subjects of disciplinary training, in the processes of education.

1. Emotion: *its Offices in Expression.*—Emotion is the natural language of that *sensibility* which tends to render man conscious of

himself, which serves to unite him, by a law of sympathy, with other beings as well as with those of his own race, and which, as a stimulus to his power of will, impels him to the various forms of salutary and pleasurable, or injurious and destructive action. Without this power, ("emotion,"—*moving outward,*) man might, indeed, possess the profoundest capacity of feeling, the utmost depth of thought, the grandest or the most beautiful forms of imagination. His whole inner world might be consciously a scene of ideal glory. But, to his fellow man, he would be mute and unintelligible. Self-contained and solitary, the individual would be as destitute of sympathy as of expression, and live unappreciated and uninterpreted, because incommunicative and unintelligible.

Emotion, therefore, we find is not left wholly at the discretion or the control of man, as a purely voluntary power. Its first and all its strongest manifestations are spontaneous and involuntary. It is the natural and irrepressible language of that wondrous capacity of pleasure and pain with which the human being is invested, in consequence of the susceptive sensibility with which his Creator has seen fit to enliven and to protect his nature.

Emotion, as the natural expression of sympathy, renders feeling legible and audible, and thus enables man instinctively to utter or to interpret the language of the heart; as an intimation of the will, it enables him to read the disposition and intentions, friendly or hostile, of his fellow beings. It is an early instrument of power to the helplessness or the sufferings of infancy, while it proclaims the presence of pain, and brings to the little patient the ready sympathy and remedial aid of the mother. It expresses and attracts the sympathetic affections of childhood and youth. It gives eloquence to the speech of man, warmth to the cordial welcome of friendship, or fire to the hostility of hatred. It melts in pity and compassion for suffering; it glows with indignation at oppression and wrong; it bends in humility and adoration before Infinite majesty, and in reverence to human worth; or it looks haughtily down on the lowly, spurns the petitioner for mercy, and tramples on the weak and the unresisting. Its power for good or evil is unspeakable in all that involves the moral or the intellectual character of human utterance.

The Forms of Emotion.—These are as various as the mental relations of man. It is Love, in the instincts of *affection;* Wonder, in those of the *intellect;* Awe, in those of the *spirit;* Admiration, in those of *sentiment;* Joy and Grief, to the *heart;* Hatred and Revenge, in the *malignant* passions; Ardor and Enthusiasm, in the aspirations of the *soul;* Courage and Exultation, in *conflict;* Fear and

Terror, in *danger*; Embarrassment, Confusion, and Shame, in *failure* or *defeat*; Anguish, in *pain*; Contrition or Remorse, in conscious *guilt*; Agony and Despair, in utter *ruin*; Serenity, Tranquillity, and Peace, in conscious *rectitude*; Calmness and Composure, in *self-control*; Sorrow and Gladness, in *sympathy*; Laughter, in *mirth*; Caricature, in *humor*; Gloom, in *melancholy*.

Effects of Emotion.—Its aspects and its traits are as numerous as the ever-changing moods of the "many-sided mind;" and its power of expression ranges through all degrees of force, from the gentle half-whisper of confiding love, or the accents of a mother's tenderness, to the scream of madness and the burst of rage. It moves to deeds of gentleness and mercy, as consciously pleasing acts dictated by the principle of duty; and it prompts to the perpetration of crimes at the thought of which humanity shudders. In all circumstances it becomes an expressive language of indescribable power,—a power for the exercise of which man is laid under responsibleness the most appalling. Its genial effects carry man beyond the limits of his nature, and enable him to approximate to the benignity of an angel; and its malignant workings invest him with the character of a fiend.

Emotion, the Inspiration of Language.—Emotion, as the natural, involuntary, or irrepressible manifestation of feeling, is, in itself, the primary form as well as cause of expression. The writhings and the outcries of pain, the tears and the wailings of sorrow, the smiles and the sweet tones of pleasure, the leaping and the laughter of exuberant joy, the exultant attitudes and shouts of triumph, the frown, the harsh tone, and the blow of anger, are all a universally intelligible language. But emotion is also the power which gives life, and force, and effect to *voluntary* and *deliberate* utterance, not only in the tones of spoken language but in the burning words which the glowing heart prompts to the pen of the eloquent writer, and which, when read from the mouldering parchment or the crumbling tablet, ages after they were written, have still the power to stir men's blood, "as with the sound of a trumpet." It inspires the modern youth with the eloquence of Demosthenes, in the words with which he "fulmined over Greece;" it kindles the heart of the student in his "still removed place," with the fire and the shout and the fierceness of the battle scenes of Homer; it appalls him with the spectacle of the victims of inexorable fate, in the defiant appeals of the suffering Prometheus, as he writhes on his rock of torture,—in the superhuman agonies of the doomed Orestes,—in the wailings of the guiltless Œdipus, when he is awakened to the complicated horrors which he has unwittingly drawn down upon himself and upon the very authors of his being.

It is the same expressive power, in its more genial forms, which lulls the youthful reader into the dreamy repose of the pastoral scenes of the eclogue, where

> "Every shepherd tells his tale
> Under the hawthorn in the dale."

It is the same power, in its ecstatic moods, which lights up the soul with the brilliant fire of the lyric ode, whose burning words have immortalized equally the bard and the hero of the antique world of gods and godlike men; and it is still the same magic power over sympathy which holds us entranced over "what, though rare, of later age," we feel to possess the same sway over the heart as that which was written of old for all time.

2. IMAGINATION: *its Office in Expression.*—Emotion endows man with the *power* of expression: his ability to give force and effect to expression, is as his capability of emotion; and the vividness of emotion is dependent on his susceptibility of feeling. But the utmost intensity of feeling might exist in internal consciousness merely; the most vehement excitement of emotion might find no definite or intelligible manifestation; it might be but the idiot's "sound and fury, signifying nothing;" the noblest sentiments of the human soul might find no adequate expression; were it not for the action of another faculty,—that whose office it is to give *form* to the vague effects of feeling, to embody the evanescent phenomena of emotion, and to give to the abstractions of thought and the generalizations of sentiment a definite shape and the durability of a permanent record.

Consciousness and introversion might enable the individual man to hold communion with his own inner conditions of thought and feeling; and memory might enable him to recall them. But, as it is not given to man, by any act of mere direct introspection, to read the heart or mind of his fellow man, sympathetic and intelligent human intercommunication requires, as a condition, the aid of some power or faculty by which feeling may be distinctly manifested, not merely in its stronger and involuntary excitements, but also in its quietest moods, in its gentlest movements and most delicate effects. The communication of pure thought, apart entirely from excited emotion, is also a necessity of man's mental character and relations. Intellect, not less than feeling, has its claims on utterance, that the individual may become consciously a progressive being, and that mutual intelligence and benefit may be ensured to society. Some means, in a word, are needed to *re*present what is present to the mind, to suggest the idea or the thought which, by a law of his nature impelling him, man desires to communicate to his fellow being.

Analogy, the Medium of Expression.—Taught by a wisdom above his own, man finds, in the analogies of the outward universe, correspondences to his own inward states of thought and feeling. These analogous forms he refers to as interpreters, in his acts of expression; he transfers them, by a heaven-taught instinct, from their original places in the visible outward sphere to his own inner and invisible world of thought and feeling. These borrowed forms, addressing themselves to a common nature in common circumstances, become the suggestive language of emotion and intelligence between man and man; and, as intellectual skill and expertness are developed, these forms are at length multiplied and complicated so as to assume all the varied shapes of the current coin of speech, even in its most arbitrary modes;—just as, in the history of human intercourse, traffic, which commenced with the interchange and barter of commodities, gradually becomes a process of purchase and sale, by the adoption of convenient forms representing value and price.

Significance of the term "Imagination."—The power by which man recognizes the analogies of form presented in the external world, the power by which he *re*presents these, the power by which he transfers these to his own internal world, and thus *images*, by analogy, his invisible, impalpable, feelings and conceptions; the power which thus embodies sentiment, and gives shape to language and all other modes of expression, is suggestively named "Imagination,"—the *imaging* faculty.

The Sphere of Imagination.—The office of this faculty, as an expressive power, is one of vast extent and of immense value; and its domain, like that of emotion, is indefinite. Intellect, in its widest excursions and its highest aims, is definite and limited. Its outward sphere is that of sense, as comprehended by the understanding, and measured by the rule of judgment; its inner sphere is that of reason acting on data of definite thought, even in its purest abstractions and widest generalizations. Intellect, in its judicial and critical capacity, may justly assume the authority of deciding on the symmetry and proportion of expression as the form of thought. But it has no creative, no inventive power by which to call up form; it may interpret or explain feeling; but it can not, without the aid of imagination, embody it. Imagination extends its dominion alike over feeling and intellect: it possesses, exclusively, the power of investing them with form. As a sovereign in the vast world of analogy, it reaches, in one direction, to the farthest limits of the outward universe, wherever form exists, in conditions known or unknown; in another direction, it penetrates the deepest secrets of human feeling, and brings them up from their darkest regions of half-unconscious being to the world of form and light, endues them with conscious life and speech, and sends them abroad as ministering angels of good or evil; in still another direction, it explores the ethereal world of thought, and, by its creative energy, gives imagery, and form, and recognized character to impalpable ideas, clothes the naked conceptions of intellect with the garb of symmetrical expression, forges the golden links of language for the continuous processes of reason, invests sentiment with the living majesty and power of utterance, and crowns the inspired productions of the artist and the poet with the consummate beauty of form and the music of immortal verse.

3. FANCY: *its Effects on Expression.*—This faculty, although it possesses a character so peculiarly marked by external tendencies, and proneness to a lower sphere of action than that of imagination, can hardly claim, with justice, the dignity of a separate and independent existence. The term "Fancy," (*fantasy*,) is, strictly speaking, but another name for *imagination*, when that faculty, as an expressive power, assumes, occasionally, a lower than its wonted office, and, not content with the creation of *form*, descends to the addition of minute detail, in the shape, or figure, or color of its embodiments. Fancy, considered as a separate faculty, may be regarded as the servant and laborer of imagination, employed to take charge of all the merely outward effects of expressive art, but whose ambition sometimes leads it to aim at higher offices than it is, in itself, competent to fill. Attempting the creation of visible beauty, it assumes the office of a presiding deity over the fleeting, fluctuating phenomena of fashion and other manifestations of arbitrary taste. Uniting itself with humor and burlesque, it displays the whole world of fantastic oddity, drollery, and grotesque effects, of every species. It handles, with peculiar skill, the pencil of the caricaturist, and delights, sometimes, in the most hideous exaggerations. It contrives, occasionally, to lay mischievous hands on Taste, and with perverting influence to make her play all manner of antics, quite unconscious, all the while, how infinitely absurd and ridiculous she is making herself appear. Hence the whole world of absurd form and combinations in modes of dress and decoration, in incongruous architecture, deformed sculpture, distorted drawing, tawdry coloring, paltry novel-writing, fugitive (and vagabond) verses, agonistic orations, and nondescript lectures.

Fancy, however, has also her own becoming and proper part to play, when, in strictest unison with true Taste, and in filial obedience to her parent, Imagination, she gives symmetry to our dwellings and to our garments, genuine grace to manners, true beauty to our gardens, happy touches to the details of artistic execution, chaste style to writing, and manly plainness to speech.

4. IMITATION: *its Tendencies.*—The faculty of Imitation and the tendency to its exercise, which,—in the earlier stages of life, more particularly,—man possesses in common with many other of the animal tribes, form, in whatever regards expression, a peculiar source of power. It ensures, when judiciously developed, as a salutary instinct, all the advantages arising from native facility, as contrasted with the comparatively slow acquirements and laborious endeavors of mere artificial or mechanical training. The long non-age required for the comparatively slow development and maturing of the human being, implies a large dependence on the fostering care of parental guardianship and example; and the innate propensity to imitation, on the part of the child, coincides, in the effect of rendering more ample the opportunity of a long course of model training and practical lessons in the appropriate accomplishments of humanity. Among these, Speech, as the consummation of the expressive faculties, thus becomes the inheritance which one generation transmits to another,—a possession unconsciously acquired, although actually the result of long-continued training, and sometimes, of painful efforts in detail.

Drawing, as an Imitative Art.—The imitative tendency of the young, leading, as it does, to the perfecting of utterance, as an exercise in which practice begets skill, extends its influence, by the law of analogy, far and wide, over every branch of art which involves expression as a result. Nor is there one of all these branches which does not, by the habitual practice of it, under the same law, serve to discipline and perfect the power of expression in every other.

The feelings, the imagination, the conceptive power, the taste, and even the critical judgment of the young mind, are all called into as active exercise, in every earnest attempt to draw in outline, to shade, or to color the form of any external object, as in any endeavor to describe it by tongue or pen. Indeed, the extreme fixedness of attention demanded for exact and faithful delineation by the pencil, ensures a yet higher degree of mental activity, than does any other form of descriptive execution, and contributes more effectually to the development of graphic power of expression in language, than can any direct exercise in speech or writing; because the same powers are exerted in the one case as in the other, but with much more care and closeness of application.

Music, as an Imitative Art.—Another of the poetic and purely beneficent forms of the divinely implanted faculty of imitation, by which man attains the development of his powers of expression and darkest regions of half-unconscious being to the world of form and light, endues them with conscious life and speech, and sends them abroad as ministering angels of good or evil; in still another direction, it explores the ethereal world of thought, and, by its creative energy, gives imagery, and form, and recognized character to impalpable ideas, clothes the naked conceptions of intellect with the garb of symmetrical expression, forges the golden links of language for the continuous processes of reason, invests sentiment with the living majesty and power of utterance, and crowns the inspired productions of the artist and the poet with the consummate beauty of form and the music of immortal verse.

3. FANCY: *its Effects on Expression.*—This faculty, although it possesses a character so peculiarly marked by external tendencies, and proneness to a lower sphere of action than that of imagination, can hardly claim, with justice, the dignity of a separate and independent existence. The term "Fancy," (*fantasy,*) is, strictly speaking, but another name for *imagination*, when that faculty, as an expressive power, assumes, occasionally, a lower than its wonted office, and, not content with the creation of *form*, descends to the addition of minute detail, in the shape, or figure, or color of its embodiments. Fancy, considered as a separate faculty, may be regarded as the servant and laborer of imagination, employed to take charge of all the merely outward effects of expressive art, but whose ambition sometimes leads it to aim at higher offices than it is, in itself, competent to fill. Attempting the creation of visible beauty, it assumes the office of a presiding deity over the fleeting, fluctuating phenomena of fashion and other manifestations of arbitrary taste. Uniting itself with humor and burlesque, it displays the whole world of fantastic oddity, drollery, and grotesque effects, of every species. It handles, with peculiar skill, the pencil of the caricaturist, and delights, sometimes, in the most hideous exaggerations. It contrives, occasionally, to lay mischievous hands on Taste, and with perverting influence to make her play all manner of antics, quite unconscious, all the while, how infinitely absurd and ridiculous she is making herself appear. Hence the whole world of absurd form and combinations in modes of dress and decoration, in incongruous architecture, deformed sculpture, distorted drawing, tawdry coloring, paltry novel-writing, fugitive (and vagabond) verses, agonistic orations, and nondescript lectures.

Fancy, however, has also her own becoming and proper part to play, when, in strictest unison with true Taste, and in filial obedience to her parent, Imagination, she gives symmetry to our dwellings and to our garments, genuine grace to manners, true beauty to our gardens, happy touches to the details of artistic execution, chaste style to writing, and manly plainness to speech.

4. IMITATION: *its Tendencies.*—The faculty of Imitation and the tendency to its exercise, which,—in the earlier stages of life, more particularly,—man possesses in common with many other of the animal tribes, form, in whatever regards expression, a peculiar source of power. It ensures, when judiciously developed, as a salutary instinct, all the advantages arising from native facility, as contrasted with the comparatively slow acquirements and laborious endeavors of mere artificial or mechanical training. The long non-age required for the comparatively slow development and maturing of the human being, implies a large dependence on the fostering care of parental guardianship and example; and the innate propensity to imitation, on the part of the child, coincides, in the effect of rendering more ample the opportunity of a long course of model training and practical lessons in the appropriate accomplishments of humanity. Among these, Speech, as the consummation of the expressive faculties, thus becomes the inheritance which one generation transmits to another,—a possession unconsciously acquired, although actually the result of long-continued training, and sometimes, of painful efforts in detail.

Drawing, as an Imitative Art.—The imitative tendency of the young, leading, as it does, to the perfecting of utterance, as an exercise in which practice begets skill, extends its influence, by the law of analogy, far and wide, over every branch of art which involves expression as a result. Nor is there one of all these branches which does not, by the habitual practice of it, under the same law, serve to discipline and perfect the power of expression in every other.

The feelings, the imagination, the conceptive power, the taste, and even the critical judgment of the young mind, are all called into as active exercise, in every earnest attempt to draw in outline, to shade, or to color the form of any external object, as in any endeavor to describe it by tongue or pen. Indeed, the extreme fixedness of attention demanded for exact and faithful delineation by the pencil, ensures a yet higher degree of mental activity, than does any other form of descriptive execution, and contributes more effectually to the development of graphic power of expression in language, than can any direct exercise in speech or writing; because the same powers are exerted in the one case as in the other, but with much more care and closeness of application.

Music, as an Imitative Art.—Another of the poetic and purely beneficent forms of the divinely implanted faculty of imitation, by which man attains the development of his powers of expression and communication, is that of Music, in the form of *song*. The young ear drinks in, instinctively and intuitively, the beauty of sound, as the eye takes in that of form and color. The laws of melodic variation of tone seem to be inscribed on the human ear, with few exceptions, as the laws of graceful form and expansion are stamped on the plant. But the musical sense is not a merely dry perception or recognition, or a mechanical obedience to law. It is one of the most delightful forms in which man becomes conscious of the pleasure of feeling or the power of emotion; and, as his culture extends, he recognizes it as the intelligent utterance of sentiment, in the noblest expressions of social sympathy, or even of devotional aspiration.

The imitative practice of music, accordingly, in all its forms, from the humblest lullaby of the nursery to the most exalted strains of the perfect vocalist, becomes a powerful discipline of the ear, because of the heart, the intellect, and the imagination. It prepares them to receive more fully the impressions of the melody of speech, and, in due season, to give forth their effects in appropriate expression. The child imbibes from the mother's song the theme of its own imitative efforts, and from the simple beauty of the natural model, catches, at the same time, unconsciously, the emotion of which it is the utterance, and thus early learns to unite expression with feeling. At a later stage of his musical culture and development, he acquires more consciously and more distinctly, a perception of the inspiration which marks the tones of the empassioned eloquence of the orator and the poet, and learns to appreciate the delicious melody of the "numerous verse" which "clothes the poet's thought in fitting sound."

The great masters in musical science and art, abundantly prove, by the transcendent delight which their efforts yield to universal man, the power and value of music as an expressive art, independently of its relation to the cultivation of the power of language. But the intensity of pleasure derived from the perfection of musical composition and execution combined, suggests instructively to the educator the power which even the elementary practice of this imitative art exerts on the character of expression, when embodied in the forms of language,—the ability which it gives to touch the heart, or to kindle emotion, and to throw the whole soul of the speaker and the writer into the mould of utterance.

5. PERSONATION: *its Tendency and Effects, as a Mode of Expression.*—The faculty of *imitation* with which man is endowed, as a form of expressive power, leading him to the acquisition of language, is early manifested in the passion of childhood for Personation; the living, actual representation of what he sees going on in the human

world around him. The lively feelings of the child are not satisfied with the mere verbal presentation of thought and feeling in the arbitrary and conventional forms of language. He has an instinctive desire to impersonate the being of others in himself, and thus to enter more fully into their feelings, and acquire a truer power of expressing them. To his fresh sympathies and ever active imagination, life around him is a drama: "all the world's a stage, and all the men and women are but players," each performing his part.

The child, the primitive man, the poet, all tend to dramatize human life, and to present it in living impersonation. The boy struts the mimic soldier, to his own mimic music; he drags his little wagon as an imaginary fire-engine, or mounts a chair and plays the orator to his little mates. In his puerile sports, he enacts a character or an incident, in dumb show, and requires that his juvenile companions shall express it in words. He personates a hero in history, or makes one in a group in a tableau, in which, as an Indian brave, he is about to dash out the brains of Captain Smith with his war-club, when his sister, as the compassionate princess Pocahontas, rushes in, and rescues the hero. At the academy exhibition, he personifies Mark Antony weeping over the murdered Cæsar, and with words of fire rousing the Romans to mutiny, "crying havoc! and letting slip the dogs of war;" or he resorts, in preference, to the pen, and dramatizes a scene from his country's history, which he and his class-mates enact to the life, according to their power. In the maturity of his intellect, and amid the grave duties of professional life, he pauses, perhaps, to recreate himself, and delight the world with the production of a Comus or a Hamlet, in which, besides furnishing the composition, he still takes an active part in the business of representation, and, true to the dramatic instinct of his nature, sustains a character himself. It is thus that he completes the educational training by which he attains to the height of eloquence and expressive power in word and action; and this dramatic faculty of personation, while it gives vividness and intensity to his utterance, proclaims the meaning and intention of the self-discipline to which he was early impelled, by unconscious instinct.

6. Representation: *The Language of Signs.*—In addition to the more imaginative and, sometimes, physical or corporeal manifestations of expressive power, which the human being exhibits in imitative acts, he possesses, as his special attribute, in virtue of his intellectual endowments, working in unison with the instinctive elements of his nature, that peculiar faculty of Representation, by which he is enabled to suggest his thoughts or feelings to the mind of his fellow man, by substituting for graphic or mimetic, or other forms of delineation, con-

ventional *signs*, audible or visible, devised by his imaginative faculties of invention and combination. These signs are recognized and defined by his conceptive intellect; they are interpreted by the understanding, acting on a law of arbitrary association, established by mutual agreement or common consent, and ultimately sanctioned by prevalent usage. Furnished with this primitive telegraphic apparatus of audible and visible signs, man is enabled to put himself in communication with his sympathetic, intelligent, and rational fellow-beings,—to reveal to them the workings of his mind, and disclose the inmost secrets of his heart.

Speech and Writing.—Disciplined and perfected by art and skill, and aided by ingenious and asiduous educational cultivation, man's primitive power of utterance and expression, ultimately manifests itself in the consummated forms of *spoken* and *written language*, regulated by the laws of thought, as dictated by the sciences of *logic* and *grammar*, and adorned by the graces of *rhetoric.*

Language, a measure of Power.—The feeble but persevering endeavors of childhood to conquer the difficulties of articulation, and to compass the power of oral expression, indicate, by the successive years which the task demands, how arduous is its accomplishment, and how thoroughly it puts to proof the ability which the young human being possesses to direct and develop his own powers of execution. Yet more striking is the magnitude of the task and the triumph, in the progress achieved by the student of written language, from the date of his first attempt, in boyhood, to pen a letter or compose a theme, to the time when, in the maturity of his intellectual manhood, he rises to address assembled multitudes of his fellow men, and to sway them by the potency of triumphant eloquence; or when he issues from his poetic privacy a work which shall live for ages, as an object of wonder and admiration.

Pictured and Written Characters.—Somewhat similar, indeed, have been the difficulty and the progress in the attainment of a mastery over the merely external part of written language; as we perceive when tracing the process from its primal rude attempts in the form of graphic delineations, through its advancement to symbolic representation, and, ultimately, to phonetic characters and alphabetic letters. Of the width of this vast field of human labor, and of the toil which its cultivation has cost, we have no adequate conception, till we look at the graphic delineations which form the historical records of Nineveh, or at the symbolic hieroglyphics and the clumsy phonetic characters inscribed on the temples of Egypt, and then contrast with these the simple and symmetrical letters of the Greek or

Roman alphabet, known and read alike throughout the ancient and modern world of civilization.

The Value of Language.—Man's expressive power seems to have consummated itself in the representative phenomena of language. In this form his whole nature, animal, intellectual, and moral, finds effectual utterance; and by this instrumentality, does he become preëminently a progressive being. Language is the channel in which the ceaseless stream of mental action flows onward to its great results. Without this outlet, his soul, imprisoned within itself, would stagnate, and all its wondrous powers perish from inaction. As the medium of communication between mind and mind, language renders education practicable, and brings to the aid of the individual the accumulated thoughts of all times and of all men. Language is the peculiar and chosen province of education. Every process of human culture is conducted through its agency; every result attained in human progress is recorded in its terms; and in every civilized and cultivated community language is justly taken as the measure of individual and social attainment.

7. TASTE: *The Signification of the Term.*—The word "Taste," employed to designate one of the expressive faculties, might seem, from its primary signification, (*relish*,) to be one appropriately applied rather to a passive and receptive condition of mind, than to one so active or energetic as are all those which are properly termed "expressive." But, in the affairs of the mental world, not less than in those of the political, *influence* is often more efficient than *power*. So it is with Taste.—The office of this faculty in relation to expression, is to retain, in the selection and use of language, the *relish* for appropriateness, symmetry, and grace, which the soul has imbibed from the primitive beauty of the forms and the effects—in other words, the language—of nature,—that other name for life and truth.

Character of True Taste.—As true taste secures genuine beauty of effect, it is not a merely passive power. It rejects every false savor; for it relishes only the true. It refuses to inhale the flavor of the artificial perfume; because it prefers the aroma of nature. It detests the ugly, and shuns the ungraceful; but it loves the truly beautiful, and builds the fabric of noble thought "after the pattern shown it on the mount," as a chaste harmonious whole, conceived in pure ideal perfection, and executed with faultless skill, like that structure which

"Rose like an exhalation, with the sound
Of dulcet symphonies and voices sweet;
Built like a temple, where pilasters round
Were set, and Doric pillars overlaid
With golden architrave; nor did there want
Cornice or frieze with bossy sculpture graven;
The roof was fretted gold."

Taste is not a quality merely negative in its influence: it is, in language, a positive power. It suggests and prescribes beauty; and, in all expression, beauty is power. Taste virtually decides and ordains the forms of language. It is therefore justly classed as an expressive faculty. It blends its effects, undoubtedly, with those of imagination and fancy, and with those of sentiment and emotion; controlling and directing and modifying these by its intuitive recognition of the eternal laws of beauty and proportion, and instinctively rejecting every blemish. If it is sometimes lost, to appearance, in the effects produced by the more obvious working of other expressive forces; its actual presence and power are not less deeply felt in the pervading harmony which, in such circumstances, it has established, and the genuine beauty which it has diffused. Its influence extends over every form of expressive art; and its results are equally legible in all. It guides the pencil of the painter, the chisel of the sculptor, the tool of the artizan, the hand of the musician, the pen of the poet, the voice and action of the speaker. It reigns over every form of language; and it moulds alike habit, character, and manners; for all of these are but varied modes of expression.

Taste, under the Influence of Culture.—Of all the faculties with which man is endued, none, perhaps, is more susceptible of cultivation than taste; and none yields larger results to the process. Trained under the fresh aspects of nature, and the strict discipline of truth, it becomes one of the most healthful influences that a liberal culture infuses into the human soul. It leads to the true, the pure, and the beautiful, in every relation of thought and feeling. Next to the hallowing influence of religious principle, it elevates and refines the whole being, and confers pure and lasting enjoyment on its possessor. It forms one of the most attractive graces of character, and breathes a genuine charm over the aspect of social life. But neglected, corrupted, or perverted, deprived of the healthful air of nature, abandoned to coarse and low association, vitiated by the influence of false custom, distorted by conventional regulations, or tainted by the impure atmosphere of vice, taste becomes depraved, and morbidly craves deformity instead of beauty, and prefers falsehood to truth.

(II.) THE ACTUATING PRINCIPLE, OR IMPELLING FORCE, OF THE EXPRESSIVE FACULTIES.

FEELING: *its Office in Expression.*—The Sensibility with which the constitution of man, as a sentient animal and as a self-conscious moral being, is invested, and by which he is stimulated to action and to utterance, may, for our present purpose, be defined as that element in his nature, which,—whether manifesting itself in temporary *sympathy*, in permanent *affections*,—in vivid *emotion*, or intense *passion* has, for its office, the excitation of his being. As the stimulus of his constitution, it impels man to the function of expression, as a result indispensable to sympathy and communication,—the necessary condition of his social and moral life. It originates in that sensibility to pleasure and pain by which the Creator has enhanced to man the enjoyment and the value of his organized and conscious existence, and secured it, at the same time, by a law of instinctive dread, from exposure to peril and to destruction.

Feeling, as an Incitement to Sympathy.—The effect of sensibility, in this relation, is three-fold; producing in man, (1.) a sympathy with the conditions and aspects of the surrounding external world, whether pleasurable or painful, attractive or repulsive; (2.) the mutual sympathy, conscious correlation, and consentaneous action of the two component elements of his constitution,—body and mind; (3.) a sympathy with his fellow men, which makes him a partaker of their pleasures and pains, causes him to desire a return of their sympathies to himself, and consequently leads him to expression and communication, as the means of exciting and attracting it.

Feeling, as an Involuntary or Empassioned Instigation.—The sentient and susceptible nature of man, his capacity and his experience of pleasure and pain, affected by causes whether external or internal in their operation, render him liable to unconscious and involuntary excitement, rising, sometimes, to the height of passion. This excitement manifesting itself in emotion,—the main spring of expression,—becomes, in some circumstances, itself a language sufficiently definite, intelligible, and expressive; as may be observed in the laughter and the crying of the infant, in the sympathizing countenance of the compassionate mother, in the ruffled features and angry temper of impatient youth, in the ghastly face of the terrified child, in the glare of the hostile savage, or in the glad smiles of the emancipated schoolboy at his holiday sport.

Feeling, influenced by Imagination and Volition.—The beings and forms of his own ideal world of imagination and fancy, or of creative thought, have also their exciting power over the internal sense of pleasure or of pain, and impel man, more or less voluntarily, to exhibit emotion, and to find its natural or customary form of expression in the articulate words of speech,—in the simpler eloquence of mere vocal tone, uttered or suppressed,—or in the silent but more enduring form of the written word.

Influence of Feeling on the Artist.—Even language itself, however, in its most distinct and definite forms, is not always sufficiently expressive for empassioned emotion. The admiration of grandeur or beauty may be strong enough and deep enough to demand some more palpable and durable shape in which to express itself. The intense delight in beauty impels the Artist to devote himself to days and nights of toil over the image which alone can satisfy the longing of his soul, for the visible presence of the loveliness which his fancy has conceived in his inner world of life and form.

On the Actions of the Child and of the Adult.—It is the untaught, unconscious working of the emotion of love which makes the child find expression for his sympathy in the act of imitating the gait and actions, and the characteristic expressions of those whom he admires. Nor does adult man always escape the effects of this tendency, when maturity of mind and habits of grave research seem sometimes to render the result ridiculous.

On the Actor and his Audience.—The natural delight in sympathy and communication, is the incitement which impels the actor on the stage to assume and exhibit, in his plastic frame and features, the agonies of dramatic passion, in all their terrific extremes, while he personates the ravings of Lear, the frenzy of Othello, or the remorse of Macbeth; and it is the same cause which attracts, night after night, to the crowded theatre, the audience who thus acknowledge the force of the great element of sympathy in human nature, and the power which vivid expression exercises over the heart, when it has even the well sustained semblance of coming from the heart.

On the Eloquence of the Orator.—It is from sympathy with the very passions which he delights to excite, that the orator devotes his days of seclusion and nights of application to the study of every art by which expression may be heightened and emotion aroused, when the decisive moment is come, and the interests of the state are at hazard, and men are to feel that their welfare or their safety is to depend on adopting the views of an eloquent and competent leader.

On the soul of the Poet.—It is sympathy with the highest sentiments and emotions of his race, and the conscious delight in giving these a noble utterance, that inspires the poet with the assurance of immortality, while he meditates his great theme, and touches and retouches his artistic work, till it stands forth complete in the majestic beauty and perfection after which his soul has, for years, aspired.

Universality of Feeling, as the Actuating Principle of Expression.—In all the above and similar instances, the sympathetic feeling which thirsts for expression, and impels to the utterance or the recording of sentiment, is one and the same. It may assume the definiteness and the depth of a personal affection, or the intensity and the comparative excess of a passion, to whatever extent the instigation of feeling may excite the sentient agent. But it is still the same element of sensibility, only working in deeper channels, and with a stronger tide, and therefore doing its work more effectually and impressively. In whatever form, it is still but an act of obedience to the law of his constitution, by which man, as a sympathetic being, is impelled to expression, that he may attain to the power and the habit of communication; and thus fulfill the conditions of his social and moral nature.

Influence of Feeling on Moral Character, as a Form of Expression.—The extent to which the element of feeling exerts its power over expression, and the degree to which its development in this relation may be carried, under the influence of educational culture, can be appropriately measured only when we trace it to its effects on the tendencies, the character, and the will of human beings individually, or in their aggregations in society. In either case, we see it in the gentle, the peaceful, and affectionate spirit of the genuine disciple of Him whom we reverence as the "meek and the lowly," and in the genial intercourse of communities governed by the influence of His law of universal love; or we read it in the arrogance, the violence, and the hatred, of which perverted humanity is so fatally capable. As "out of the abundance of the heart the mouth speaketh," the prevalent emotions and expression, the manners, and the habitual language of man, in these opposite conditions of individual and social life, will depict themselves on character and action.

Influence of Feeling on the Character of Art.—In the visible language of graphic art, we read the same lesson of the power of feeling as an element of expression. We see it in the appalling force with which the sculptor has presented the agony of pain and struggle, in the writhing frame and contorted features of Laocoon, or the perfect placidity and repose with which he has invested the face and form of Antinöus. Nor is the lesson less impressive when we turn from the superhuman fierceness of expression in attitude and features, which characterizes the delineations of passion and penal torture, in some of the figures depicted by the hand of Angelo, to the serenity, the sanctity, and the unutterable loveliness, beaming from the half-divine forms in which innocence or holiness is pictured by the pencil of Raphael.

Its power in Music.—The ear drinks in the same lesson of the power of empassioned expression, while it listens to the great masters of musical art, and feels the majesty of its utterance, as conceived in the soul of Handel, and worthily executed by the skillful hand of the accomplished performer. From such effects of sublimity and force and solemn grandeur, down to the breathings of tenderness in a plaintive strain of pastoral melody, the thrill, responding to the stirring air of the soldier's march, or the wild gayety of the peasant's dance, we have but the varied forms in which emotion evinces its sway over this most expressive of arts, by the inspiration which it breathes into its numberless moods.

Its Effect on Language.—To the emotive force of feeling, Language owes all its sublimest and most beautiful forms of cultivated utterance, whether in expressing the depth of affection or the intensity of passion; and the remark is equally true of the literature of the elder world and that of modern times. In no record of humanity is the fact more strikingly exhibited than in the pages of the Sacred volume, where the heart of man is laid open in all its workings, in the primitive language of poetic imagination and Divine truth combined, and where the human soul pours itself forth in every mood; now wondering at the vastness of the creation, or adoring the infinite majesty of the Creator; now humbled to the dust, under the sense of man's insignificance, or, in the tones of contrition and penitence, imploring the boon of pardon; uttering thanks for boundless goodness and mercy; rejoicing in the conscious favor of God; sympathizing in the gladness and beauty of nature; touched by the paternal tenderness and compassion of Jehovah, or joining in the denunciations of "indignation and wrath, tribulation and anguish," threatened to his enemies.

In all the uninspired delineations of thought which have come down to us from ancient times, it is the same pervading element of feeling which has given them their lasting life and their sway over the mind. To some prominent passages of this character we have already alluded; and, for the present, the allusion must suffice. Nor have we time now to dwell on corresponding examples drawn from modern literature, the peculiar charm of which, in one word, is the power with which it calls forth the natural emotions of the heart. In every form which literature assumes, as a power or an influence over the soul, exerted through the medium of expressive language, the main spring of effect, the grand motive power, is feeling. The life of expression, in all its cultivated forms of language or of art, is emotion.

Feeling, under the Guidance of Education.—Recognizing the fact last mentioned, the intelligent superintendent of education will direct his endeavors to the due cherishing, strengthening, and developing, as well as to the moulding, guiding, and governing of this great element of intellectual and moral power. With his eye fixed on this momentous issue, he will watch the natural tendency and direction of the instinct whose action he is to guide, so as intelligently to coöperate with its spontaneous working, and aid in the accomplishments of its peculiar office.

The teacher is, to a certain extent, or, at least, so far as he is a teacher of language, bound to furnish his pupil with the invaluable advantage resulting from a ready command of correct expression, one of the surest passports to usefulness and success in life. But the life-spark of expression can not be struck from a dull mind. The latent fire of feeling must be kindled, must be brought to the surface, that it may glow in the living look and audible tone of emotion, or beam forth in the burning words of eloquence, whether flowing from tongue or pen. The judicious instructor will resort to every expedient suggested by the life and beauty of nature and of art, as sources of inspiration, whence corresponding life, and beauty, and expressive power may be breathed into the soul of his pupil, and live in his utterance.

III. THE TENDENCY OR HABIT OF ACTION, IN THE EXPRESSIVE FACULTIES, AS IT IS MANIFESTED IN UTTERANCE.

Utterance an Instinct.—When we contemplate man as a being capable of education, he may, for our immediate purpose, be regarded as furnished by his Creator, with what may be termed the *apparatus* of expression, in the gift of the various faculties which we have been hitherto considering. We perceive him further provided with an adequate *motive power*, by which this apparatus is propelled, in the involuntary or voluntary action of feeling. The indication next to be observed by the educator, as the suggestion for his guidance, in his endeavors to coöperate with Nature's tendency to development, is, In what direction does the action of the expressive faculties naturally tend? What, in this instance, is the instinct of spontaneity? What, under the guidance of his own inward promptings, does the child incline to do or to become? What habit or attribute of character does he thus acquire? The answer furnished by observation, in this case, plainly is,—Man, as a sentient, intellectual, and sympathizing being, acting under the primary impulse of instinct, and without any interference of human culture, obviously inclines to Utterance, (throwing himself *out*,) or, in other words, to *self-revelation*, as an ordained function of his nature, verifying and crowning his intelligence, and constituting him a social and moral being, capable of progress and of culture. He craves and finds expression, accordingly, in many and various forms: he makes himself felt and understood, in some way or other, by his fellows. Under the guidance of education, he but learns to do this more definitely and successfully, through language and expressive art. From a sentient and intelligent, he develops thus into a communicative being,—the result, so far, of the combination of unconscious and voluntary education, and, at the same time, the condition and the pledge of subsequent intellectual and moral progress.

Repression a Common Error of Educational Training.—The attentive observation—not to say the systematic study—of man, to which the educator and teacher should ever feel himself bound, as the only security for the intelligent and successful discharge of his duties, suggests, at this stage of our subject, the fact, that a prominent feature of error, in the too prevalent arbitrary modes of education, has been the *repression* rather than the development of the natural desire of utterance in childhood.

From the very first steps of his mental and moral progress, man is not a merely selfish and receptive being. He longs to impart his feelings, and to communicate his observations: he wishes to give, as well as to receive: he feels impelled to utter himself that he may impart and confer, not less than receive. His impulse, as a sympathetic one, is unselfish, generous, noble. When the child exclaims to his playmate on the beauty of the flower which they see, he does not merely call for sympathy in the delight which he feels: he would, by his instinctive expression of pleasure, suggest and impart that delight.

Utterance, under the benign guardianship of Nature, as its Author's interpreter, is thus, essentially and substantially, a moral process, not less than a merely sympathetic and intellectual one. Nor, in education, should it ever be forgotten that, by the Creator's ordination, every utterance of a feeling or an emotion, gives it additional strength and life; and that, obeying the divinely instituted law of speech and communication, we are aiding in the process of building up, day by day, and hour by hour, the fabric of human character.

Arbitrary education, however, is, in no feature of its meddling mismanagement more conspicuous than in the *restriction*, the *reserve*, and the *silence*, which it is ever so prone to impose, and on which it is so apt to plume itself, with reference even to the very first stages of its repellent sway.

The five years' probationary and preparatory silence which Pythagoras is said to have exacted of his disciples, might be an excellent discipline for mature minds, as an introduction to the "metaphysic bog profound," into which he meant thereafter to plunge them. But one of the first and most urgent wants of childhood is utterance. The innocent little human being is ever thus holding out his petty link in the golden chain which binds heart to heart, mind to mind, and man to God: he is ever ready to join his link to that of his neighbor. But the mechanical educationist, with his "look at your book, and not at me!" frowns the infant volunteer back to his seat, to his individuality, and his isolation; and the chain by which the little petitioner for sympathy and knowledge, might have been lifted with the conjoined force of the mental world, is of no avail to him. his link of connection with it is yet detached. His turn has not yet come, in the great game of opportunity; and he must bide his time as best he may.

Appropriate Training.—Under the unerring and genial guidance of the mother, the child is not perpetually immured within doors, or confined to one spot, or fixed in one posture: he is allowed, occasionally, at least, to behold the outward world, to range the fields, to walk on the road, to observe the objects around him, to feel their attractive force, to admire their beauty, to wonder and to inquire about what is new to him, to utter his exclamations of pleasure, to examine, and to name whatever strikes his attention. He thus enjoys his own nature in the free exercise of his faculties; he is consciously progressive in intelligence and in speech, as in feeling, and, so far, is effectually and successfully preparing to become, in due season, eloquently expressive.

Disadvantages of City Education.—The worst, perhaps, of all the many evils attending the supposed necessity of congregating in cities, and adopting artificial modes of life, is one but little thought of. The parent who relinquishes his rural home in the open village street or in the field, flatters himself, perhaps, that he is securing better educational advantages for his children, when he takes up his abode in one of the confined dwellings of the close-crowded city. He may find, by the exchange, a teacher more expert in turning the machinery of instruction, and a more ample supply of the learning to be had from books. But the nobler, the truly liberal part of his childrens' education, he has foregone forever. The free scope, the pure, bracing air, the rich variety of nature,—the healthful influence of these on the growing frame and the expanding mind, on the susceptible heart, on the plastic imagination, on the whole soul and character; these are sacrificed, and with them, the best capabilities of culture.

Educational Benefits of Rural Life.—In no respect are the losses just mentioned greater than in regard to the part of education which we are now contemplating. To the child reared in the freedom and the beauty of nature, everything around him becomes a language, expressing the happiness which he unconsciously enjoys. His vocabulary is furnished in the forms, the colors, the life, the sounds and motion, amid which he finds himself. The half-conscious awe which he feels, under the deep shade and the sweeping boughs of the great elm, through which he looks up, with a pleasing dread and wonder to the over-arching sky, the beautiful wild-flower which waves and nods to him as he passes, the brook which runs bubbling and gurgling through the meadow, the majesty of the flowing river, the roaring of the winter wind through the bare trees, the whirling of the snow-flakes, the glittering garment of the ice-storm, the opening of the spring buds, the fluttering of the summer leaves, and the sailing of the falling leaf in autumn, the enlivening voices of the domestic animals, the entrancing music of the birds;—these, and a thousand other unpaid teachers, have all been training him in a language true, copious, perfect, and inspiring,—compared to which, book-learning is but as the dry husk to the rich nutritious grain.

Genial Culture.—To favor and cherish, not to check, utterance—to elicit, not to repress expression,—to multiply, and deepen, and expand, and fill, not to dry up, the sources and reservoirs of language;—these are the true offices of education. The cultivation of the young mind, taking a suggestive hint from the cultivation of the young tree, should allow a liberal scope of nutrition, of growth and expansion, before calling in the aid of the pruning knife. A large part of early education should consist in conversation, in which the pupil should freely partake, as the natural means of acquiring accuracy and expertness, as well as freedom, in expression. The tendency to write and to draw, should have full scope and ample encouragement. Care should be taken to render interesting and attractive every form of exercise by which the student may ultimately attain to the free, forcible, and correct expression of thought. To the various modes of securing such fruits of culture, in detail, we shall have occasion to advert in the sequel.

IV. Result of the Action of the Expressive Faculties:—Communication.

The Power of Communication.—In the previous stages of our present inquiries, we have been occupied with the *classification* of the powers of expression, their *springs of action*, and the *habitual tendency* and direction of their current, under the guidance of unassisted nature and of education. The next step in the progress of investigation preliminary and introductory to the actual work of express culture, is the consideration of the Results at which, whether by the law of natural development or that of educational cultivation, the human being arrives, in consequence of the exercise of his powers of expression.

The immediate result of utterance is Communication,—the impartation and interchange of sympathy or sentiment, by which man inspires his fellow man with the same feeling, affection, emotion, passion, thought, or sentiment, which actuates himself; and which, as the circle of kindred minds is enlarged by the aggregation of numbers, extends his personal mood or mental condition throughout the sphere of the community of which he is a member.

Intellectual and Moral Effects of Communication.—The views, the will, and the power of an individual, acquire, through communication, an ascendency, it may be, over a nation, or even over the whole civilized race, for successive ages; while, on the other hand, the intellectual acquisitions, the moral and spiritual attainments, the sympathies and the accumulated resources of nations and of ages, may be brought to the aid of the individual, through the magic power of language.

For good or for evil, man's power of communication with his fellows, gives to the aggregated multitudes of a whole people, or even of the race, the unity of purpose, the singleness of aim, the directness, the personal efficiency, the ease and the certainty of action of a single agent; while it equally arms the individual with the intellectual, the physical, and the moral force of millions. The sage, the orator, the poet, the artist, the statesman, the warrior, thus become the recognized representatives of a people or of mankind, to whom communities and nations bow in submission or in homage, and to whose ascendant genius they render the tribute of heart and hand, of treasure, or of life. Thus, too, the youth, in his studious endeavors to advance his intellectual and moral condition, has the aid arising from the experience, the counsels, the guidance, and the sympathies of the intelligent and the virtuous of every age and nation which possesses an accessible record of its progress; and the student whose days have been spent in strictest seclusion and unremitting investigation, enjoys the assurance that the fruits of his solitary research and strenuous application shall be gathered not by himself alone, but by whatever enlightened and sympathizing minds, throughout the world, and in all subsequent time, shall come within his sphere of communication by living voice or written word.

Value of Communication.—Communication, as the boon of language, is not to be measured by its immediate results merely, as a telegraphic convenience for the impartation of feeling or the conveyance of thought,—great as its uses, in this relation, are to the whole race. Language is the vehicle of all knowledge. Like the noble ship, costly and valuable in itself, but yet more valuable in the treasure with which it is fraught, it comes laden with the accumulations of countless minds and boundless wealth. To measure its full value, we should have to compute the number and the worth of every acquisition which the mind has garnered up in the records of every department of science and literature, and thus rendered capable of conveyance from man to man, and from generation to generation, throughout the world.

V. EDUCATIONAL PROCESSES FOR THE CULTIVATION OF THE EXPRESSIVE FACULTIES.

These may be classed under the following heads: The Attentive Observation and the Love of Nature; the Study and the Practice of Art; the Study of Language; the Practice of Exercises in Oral and Written Expression.

OMISSIONS AND DEFECTS IN MODES OF CULTURE.—*Language.*—The plan of education generally adopted for the exercise and discipline of the expressive faculties, indicates little philosophical design, logical consistency, generous spirit, or liberal scope, in the course which it prescribes. It is founded on views too narrow and exclusive; and its execution has been too mechanical. The mother's and the teacher's eye has been fastened too exclusively on the facts of *language* alone, as so many detached points to be mastered in detail. Hence the injury sometimes done to the organs of speech, by premature attempts to conquer some of the difficulties of articulation, in the mother's zeal for the precocious development of the faculties of her child; and hence, also, the mechanical and arbitrary processes of alphabetic training, in its customary forms. The eager desire for immediate definite results, has caused the teacher, too generally, to overlook the great facts that language is but one of the forms in which the expressive faculties are exerted, or in which expressive power is to be developed, and that the successful cultivation of language is inseparable from due exercise in all the kindred forms of expression to which the mind naturally tends.

The general plan of education is limited to instruction and practice in the oral and written forms of language, in the school routine of *reading* and *grammar*, and what is termed *composition.* The forms of exercise and the methods of training, also, in these departments of education, have too generally been literal and mechanical; and the poverty and imperfection of the results have betrayed the defects of the plan which prescribed them.

Methods too exclusively Passive and Receptive.—The great importance of a full and generous development of the whole mental constitution, as indispensable to the right action of any of its elements, having been overlooked in the plan of education, due allowance has too seldom been made, in the training of the mind, for the adequate exercise and discipline of the active nature and of the expressive powers of the human being. The general prescription of the processes of instruction, has evidently been directed to the *receptive* action of the *understanding* and the *impleting* of the *memory*. The mind of the pupil has been too uniformly kept in a comparatively *passive* condition. He has not been permitted and invited to use sufficiently even those materials of expression which he has, from the earliest steps of his progress, in the routine of education, been so laboriously employed in accumulating. Expression, neglected in early training, becomes difficult in later stages; and conscious failure incurred in attempting it, renders it distasteful. Effort, under such circumstances, is reluctantly made, frequently intermitted, and ere long discontinued.

Neglect of our own Language.—No remark is more common or more true, than that even our highest and best courses of culture do not result in furnishing accomplished men, as regards the actual use, in speech or writing, of our own language. Ample time, comparatively, is usually allowed for the study of the ancient languages, and even for that of some of the modern; but little is expressly assigned for the thorough acquisition of our own, which, to ensure to the student a perfect command of it, should be the groundwork of daily exercises, thoughtfully planned and carefully executed, from the first steps in education onward to the last day of professional preparation for the business of life.

Faults of Unconscious Teaching.—Some of the many causes of imperfect teaching, in the department of language, may be found in the fact, that the true nature and actual character of early training are not recognized by those whose office it is to superintend the first steps of childhood in the path of development. The mother and the primary teacher too often overlook the vast influence of *example*, which, to the imitative nature of childhood, always becomes a model. Hence the imperfect articulation, incorrect pronunciation, mechanical monotony, and lifeless tone, which are so generally prevalent in school reading. These faults are, too often, faithful copies of the style which the ear of the young learner has unconsciously caught from his mother, his teacher, or his class-mates, and which habit rivets on his voice, for life.

Error in Alphabetic Instruction.—The mechanical manner in which the child's first lessons in reading are sometimes conducted, is another cause of failure, in the department of instruction to which we now refer. In many schools, the young pupil never has his attention called, definitely or consciously, to the fact that the letters of the alphabet are *phonetic* characters, the whole value of which consists in the *sounds* which they represent: in many, he may pass through the whole course of instruction without being once called to practice the constituent elementary sounds of his own language: in very many, there is no attempt made to exercise and develop, modify, or cultivate, in any form, the voice itself. Hence the prevalence of the errors which have been already mentioned as fruits of unconscious imitation, and which careful, early cultivation can alone prevent.

Neglect of the Meaning of Words.—An obvious defect in prevalent modes of education, as regards adequate preparation for the free and correct use of our native language, is the yet too common neglect of early and progressive *etymological training* in the analysis of words, and the tracing of the significant value of their component syllables, so as to ascertain and fix in the mind their exact meaning and full power, and to follow their transitions from a primary to a secondary sense, or from one which is figurative and imaginative to one which is purely intellectual or merely practical. It is such intimate knowledge, and such only,—the fruit of daily exercise and careful training,—that can give, at length, to the mature scholar, or the professional speaker, that mastery of words, which now so often, when almost too late, he feels that he needs for the full and perfect expression of his thoughts.

Defective Forms of Reading Exercises.—A common and marked failure of education, as regards the course of instruction in reading, is partly attributable to the cause last mentioned,—the unintelligent enunciation of words,—but largely, also, to the mechanical perusal and unmeaning pronunciation of sentences, as merely so many successions of audible sounds. Such exercises deaden rather than enliven the powers of expression, as they blunt rather than sharpen the understanding, for the intelligent conception of meaning. Yet, in not a few schools is it the fact, that even quite young pupils are never asked, in performing a reading exercise, to point out, previous to the pronouncing of a sentence, those words in it which are most significant or expressive, and accordingly require that special force or turn of utterance, which alone can render them *emphatic*, so as to convey their full sense, or bring out the whole sentiment which the sentence was framed to express. A similar neglect is too prevalent as regards the effect of proper *pauses* in reading, which should always suggest to the ear an intelligent analysis of a sentence into its constituent portions of sense, not, as is very frequently the case, a mechanical analysis, servilely following the grammatical punctuation with measured uniformity of utterance, whatever be the depth of thought, or the force of feeling, implied in the language of the composition. As the syntactical punctuation, although it may often coincide with the expressive and significant rhetorical pausing, does not necessarily do so, but, on the contrary, is sometimes directly at variance with it, the effect of uniformly following the points, must, in such cases, be a positive hindrance rather than a help to intelligible or appropriate reading, as an exercise of voice. The utterance of the common phrases, "Yes, sir," or "No, sir," will furnish sufficient illustration here. The comma preceding the word "sir," is due to the eye, on the score of syntax, but not to the ear or the voice, on that of sense.

It is in the audible reading of *poetry*, however, that the defects of current education are most strikingly exhibited, as regards the discipline of the expressive faculties. Poetry, as the language of imagination and feeling, speaking to the heart, properly requires a mode of reading obviously quite different from that of the usual forms of plain didactic prose, addressed to the understanding merely. The word-pictures of the poet paint their imagery on the imagination; the intellect interprets their forms; the heart beats in response to the graphic delineation; and the voice gives expression to a correspondent melody of tone, while it utters the words of the verse. To read poetry aright, therefore, implies the poet's inspiration, imparted to the soul and voice of the reader,—an exalted state of imagination, a sympathetic vividness of feeling, unconscious quickness and acuteness of intellectual conception, a plastic voice and expressive tone. An appropriate course of preparatory discipline of feeling and imagination, is obviously, then, as indispensable to poetic utterance, as the right understanding of the intellectual sense of a sentence, is to the ordinary reading of prose. For this purpose, every grand or beautiful form of nature or of expressive art to which he can resort, with a view to give susceptibility to feeling and imagination or pleasure to taste, now becomes, in the hands of the intelligent teacher, an instrument of power, to aid him in the processes of culture. Now is the time when he feels how deeply he must ever be indebted to the vivifying influence of music, painting, and sculpture, and every chaste form of decorative art, as the effective means of opening the eye of the soul to the vision of grandeur or of beauty, firing the heart with the ardor of inspiration, touching it with the sense of tenderness and love, and refining the taste by the display of true elegance and grace.

The dry, prosaic, lifeless style in which poetry is too generally read in our schools, is more injurious than beneficial, not merely to the faculties more immediately concerned in the conception or utterance of poetic composition, but to the action and influence of all those powers, mental and moral, which tend to elevate and refine the soul, and mould the character to the highest forms of excellence. There is something akin to the barrenness of spirit with which the sceptic peruses a page of sacred scripture, in the utterly mechanical manner in which the well-drilled pupil in mathematics or in grammar, is sometimes permitted to read strains of the purest poetry, embodying the sublimest sentiments, and calling for tones of the deepest and most vivid emotion, or even of the most exalted passion.

The general neglect of appropriate means for cherishing sensibility and cultivating taste, in the relation now referred to, is the more to be regretted that it prevails most in that form of education and in that class of schools in which it tells with the deepest effect:—I refer to our common modes of mental cultivation, and to those seminaries in which the mass of our people are trained. The recuperative influences of classical culture, in our higher literary institutions, does something to redeem, in this respect, the omissions and the defects of earlier training. But it is much to be feared that, even in our boasted New England education, as generally conducted, the young who are to receive no such remedial aid for disproportioned and defective cultivation, close their school course without the benefit of a single effort, on the part of instructors, to render their pupils capable of appreciating or expressing the sentiments embodied in the best passages of our own literature and that of the parent land,—a literature which contains confessedly more of the inspiring elements of pure morality and noble character, as well as genuine beauty, than any that has yet appeared on earth; not excepting even the model languages of classic antiquity.

Instruction in Grammar.—It is but of late that those who prescribe the forms of education or the modes of instruction, have furnished the working teacher with the means of rational and philosophic training for his pupils, in another department of culture professedly occupied with the discipline of the expressive faculties, but, in past years, so formally conducted, for the most part, as to embarrass and retard rather than aid the progress of development. A great change, unquestionably, has taken place in the character of text-books on Grammar; and in this branch of instruction we have recently been provided with valuable facilities for improvement, in several excellent treatises, well suited to the true uses of a text-book,—not a synthetic synopsis of the science as it lies in the mind of the consummate grammarian, but a gradually progressive and practical presentation of the subject, from its simplest elements upward, in a course, at the same time, so strictly logical, that every step leads, by a law of thought, to another, and so thoroughly practical, that,—to use the not inapt expression of a German instructor visiting one of our American schools,—the pupil is made, at every step, to "*experience* grammar."

Defective Methods.—Still, too many of our teachers cling to the narrow practice of following, in every grammar lesson, the order of a *synthetic* text-book, in which the subject is admirably arranged for a systematic and philosophic review of the science, but by no means for the successive steps of progress to the young mind commencing the study of it. The method of such text-books is precisely that which must be *inverted* in all true, living, oral instruction, or in any rational attempt to introduce a learner to a knowledge of the subject, and to guide him in his first endeavors to reduce it to practice in illustrative forms of exercise. The logic of instruction requires that the whole science of grammar should be first subjected to a rigorous *analysis* in the teacher's own mind, that its elements may be exhibited individually and successively to that of the pupil, and so become the groundwork of his *inductive* and intelligent progress from the recognition of facts to that of principles and laws. The practical part of the instructor's business, requires, in this, as in all other branches, a strict compliance with the rule of presenting one element only at a time, but in such succession as to develop the whole subject in easy steps of connected progress,—each perfectly understood and thoroughly exemplified; nothing assumed, but everything proved; nothing merely defined without being reduced to practice.

The Practice of Composition.—Till very recently, in comparison, no branch of education connected so immediately with the discipline of the expressive faculties, has been more faultily conducted than this. Without waiting for the development and efficient action of the reflective faculties, or the power of abstract conception and general thought, the teacher, when he has conducted his pupils through a very imperfect course of grammar and mechanical "parsing," and, perhaps, a little technical rhetoric, proceeds to prescribe a task in composition, on some *general* theme requiring the thoughts of a mature and capacious mind, besides the command of a skillful pen, for its proper treatment.

Results of Defective Methods of Teaching.—Called thus, without means, to perform a task which leads him entirely away from the region in which his mind naturally and habitually works,—the *concrete* world of actual observation and of clear conception or conscious feeling,—the pupil finds himself unable to do what is required of him as a personal effort. In these circumstances, if he does not actually shirk the task imposed on him, he has no resort but to repeat the commonplace thoughts and sayings of others, in which he feels no interest, and which, to his consciousness, have no truth. The precious moments of youth are thus worse than wasted; the expressive faculties are withered and dried up; and education, thus misdirected, destroys the powers which it was employed to cherish.

Advantages of Seasonable Training.—Teachers who take the pains to observe well, know that there is a stage in the life of childhood, when expression is a spontaneous tendency and a delight,—when to construct a sentence on his slate, or pencil a little note on paper, is to the miniature "ambitious student," a conscious achievement and a triumph of power. Then is the happy moment for beginning the work of practice, which, if neglected at that stage, will never be easily, naturally, or effectively done afterward. The attempt may be made at a later period, under the influence of a sense of duty, or a feeling of shame, or the consciousness of compulsion. But, by this time, the plastic suppleness and pliancy of the mind is gone; and the whole endeavor proves an affair of difficulty and dislike. The teacher's policy is never to let the moment come when composition, whether in the form of note or letter, or narrative, or description, is felt to be anything else than a pleasure and a privilege. The expression of sentiment, and the argument for an opinion, will then, become as easy, as natural, and as pleasurable employment, as the first steps of conscious progress, in the penning of a juvenile note or letter.

Rhetoric.—The great defect in conducting this branch of education,—a defect which is still very prevalent,—consists in the fact that the study of it is so much a matter of theoretic speculation on principles of taste, or is limited to the mere committing of rules to memory. Rhetoric, to become a useful branch of modern education, should embrace a gradually progressive course of exercises, embodying successively the facts of language, in the use of words and the construction of sentences; it should include the practice of daily writing, for successive years; frequent exercises in the logical arranging of thought for the purposes of expression, and the adapting of the forms and character of expression to thought; and it should be accompanied by the close study and critical analysis of the works of distinguished writers, with a view to acquire a perfect mastery over every form of style.

Elocution: Errors in Modes of Instruction.—Few branches of education are so little understood or rightly practiced as this. We have, in our current modes of instruction, little choice between the faults of style arising from what the indolent incline to term "a generous neglect," through fear of "spoiling" what they claim as "nature," and those faults, on the other hand, which are attributable to literal and mechanical modes of cultivation, and consist in the obtrusion of arbitrary details and artificial forms. Hence the results which characterize the one, in the gross errors of slovenly and low habit, coarse and disgusting manner, uncouth effect, bawling vehemence, and gesticulating violence, of what is sometimes dignified with the name of "popular oratory;" and hence the opposite traits of finical taste, affected elegance, false refinement, and studied contrivances of effect, which belong to perverted culture.

Errors in Theory.—With the advocates of neglect, the true teacher, as a believer in the value of cultivation, can have little sympathy, further than in the condemnation of false and artificial manner. Neglect of culture, he knows well, produces, in regard to all expressive art, the same obvious faults of rawness and inappropriateness, awkwardness and error. It is much to be regretted, however, that the language of some eminent writers, in their anxiety to protest against the errors of mechanical and literal training, gives countenance to the claims of ignorance on this subject, and seems to sanction the utter neglect of cultivation. Prominent among these it is to be regretted that we find an authority otherwise so justly eminent as Dr. Whately, whose own brilliant talents and ready power of expression, while they tend to give him an ascendency over the minds of students and teachers, are perhaps the very circumstances which disqualify him to form a true judgment on the modes of cultivation best adapted to the great majority of minds which fall under the care of the teacher, in the common routine of education. The error,—if one may be pardoned the term,—by which ingenious minds are, on this subject sometimes entirely misled by superficial observation and hasty conclusions, is that of overlooking the great fact that, in the cultivation of any branch of expressive art, education is properly charged with a double duty,—that of aiding, by every favoring influence, the inward power of conception, and that of watching over the outward form of expression. In the former function, education is spiritual, genial, inspiring, intellectual, in its suggestions: in the latter, its office is formative and exterior; it watches, with the nicety of a musician's ear and a painter's eye, over every point of detail, and assiduously trains every organ of the pupil to exactness, as the law of truth, extending to the minutest effect of vocal utterance and visible action. True culture, in this relation, aims at a perfect result, and descends, therefore, to the moulding of every detail.

The necessary Union of Theory and Practice in Teaching.—It is a great error to suppose that, in doing its practical work, education must do it in a narrow and servile spirit, or in a merely mechanical form. Genuine instruction, in its minutest direction, recognizes and impresses a principle which prompts the preference of one form of expression to another; and it takes care to deepen the impression of the principle by means of the associated art in practice. Faithful teaching must always extend to details. There is no slighting or slovening in its work. The difference between true and false instruction, in all art, is simply this: the former in prescribing a rule, refers to the parent principle from which it is derived, and thus makes instruction *logical*; the latter lays down the rule as a detached and arbitrary fact of mere inculcation, and thus renders instruction *empirical* and *mechanical*. The skillful teacher knows how, in inculcating the closest application to detail, to keep the mind intent on the principle which suggests it. No error in educational training can be greater than that of shrinking from or shunning particulars, under the plea of generalizing. In all matters of expressive art, principle must be developed and applied in practice.

Necessity of Detail.—The right expression of a sentiment by voice and action, like every other external act of mind and organ, has necessarily a mode and a form, coëxtensive with the words in which it is embodied; and neither teacher nor student can afford to dispense with one element of the true effect. The attention, therefore, must be directed to the study and observation, "analytically, of the emphasis, tones, pauses, &c.," unless we are willing to neglect the proper effect of these on speech. If we can not communicate sentiment without a due observance of these, they must evidently be studied, more or less, according to their value and importance; and the very office of instruction is, in all such cases, patiently to descend to the study and practice of detail.

Yet Dr. Whately, in his Elements of Rhetoric, asserts that the analytic study of detail, in such matters, "must vitiate every system of instruction founded upon it." For this conclusion, fortunately, however, he gives no reason but what is contained in the brief phrase, "according to my views," and adds, further, the saving clause, "if those views be correct." A true and efficient friend of education, in other respects, thus sides with the opponents of culture, by speaking from the preferences of personal taste and arbitrary opinion, instead of the laws of analogy and universal truth.

In most Anglo-Saxon communities, the teacher of elocution receives his pupils encrusted,—one might say,—with the errors of neglected or corrupted habit, unconsciously contracted from the current faults of his home, his early school, the street, the local style of his vicinity, or that of some popular public speaker. The eradication of these errors is obviously the first duty of an instructor. But, according to the views of Dr. Whately, the instructor must not put forth his hand to touch such faults; for this could not be done without incurring the evil of entering into "analytic details of emphasis, tones, pauses, &c." The fabric of education, in this as in all other departments, resembles the well constructed edifice, liberally and scientifically planned, symmetrically proportioned, and thoroughly finished in detail. The outside observers of the processes of instruction,—among whom Dr. Whately, for the time, takes his position,—are quite willing that the intellectual structure should be a goodly mansion, on the whole, but insist on the notion that it shall be built without any detail of wood, stone, or brick, in particular.

"*Natural Advantages.*"—In the act of utterance, the glance of genius may suffice, at times, for the intuitive recognition of a principle; and the empassioned impulse of artistic temperament, may prompt to instantaneous and perfect expression. The possessor of such attributes may, on exciting occasions, dispense with reflective thought and studious application as securities for success in utterance. But the majority of mankind, whether in youth or maturity, consciously and habitually need all the aids of analysis and study, and are successful in proportion to the closeness of their application and the thoroughness of their practice. The aid, in such circumstances, to be rendered by the intelligent and faithful teacher, is precisely that work of detail to which Dr. Whately objects. The student, through inadvertency, overlooks, for example, the true and appropriate manner of expression in solemn emotion; and, in the utterance of a passage of that character, runs on, through the influence of neglected habit, in a *high*, *loud*, and *rapid* voice. Here, the mechanical teacher will, of course, rectify the error, for the moment, by merely exemplifying the proper style, and making the pupil repeat in imitation of the model, but with no explanation, and with no reference of any point to a fixed principle which might be a guide in future practice. The true teacher, —who never can rest satisfied with anything merely mimetic or parrot-like,—when he indicates errors, endeavors to correct them by referring his pupil to the principle from which they deviate. He interrogates him in this case as to the true and natural style of voice in which solemn emotion is uttered, and directs his attention successively to the facts that it is characterized by tones which are comparatively *low*, *soft*, and *slow*,—as heard in the natural and appropriate utterance of devotional feeling. Teacher and pupil have thus a definite aim and an intelligent course before them in the reiterated practice which may be required for the correction of error, and a guiding light to direct them in all similar difficulties which may occur in subsequent exercises. In this department of education, as well as in others, true instruction is nothing else than the exposition of a *principle* along with an *analytical application* of it. Yet this is the very mode of procedure which Dr. Whately condemns, when he objects so decidedly to that method of elocutionary training which calls the attention of the student first to the prominent vocal effects of an emotion, and then descends to the particulars of expression in "emphasis, pauses, &c."

The errors of theory, regarding this department of education, have been dwelt on longer than might have otherwise been necessary, were it not for the proneness of those who superintend and control the forms of instruction, to defer to the authority of distinguished names, and to discourage the well directed efforts of the teacher. The mode in which reading is taught, or elocution practiced, in the successive stages of education, has a greater effect on mental and moral development, than any other branch of instruction: it affects not only the intelligence, but the taste, the habits, and the whole character of the mind. To the young teacher, therefore, it is exceedingly important that his views on the subject be clear and correct.

The practice of Gesture.—The visible part of elocution,—expressive action,—is another subject on which the errors of theory and practice are numerous and great. They consist chiefly, however, in intentional or unconscious *neglect*, on the one hand, and *mechanical cultivation*, on the other. The former cause of faulty habit appears in inexpressive, unmeaning, and inappropriate forms of bodily action, in insignificant tricks of personal habit, or in excessive and violent gesticulation, accompanied by awkward and uncouth attitudes: the latter shows itself in unnatural, affected, or fantastic gestures and positions. The expressive actions which naturally and properly belong to public address on subjects which call forth emotion, being larger and more forcible than those which belong to the habitual style of private conversation, it is of great service, in the training of youth, that, in addition to all the healthful aids arising from manly exercises and enlivening sports, there should be a daily course of training on the principal forms of oratorical action, with a view to ensure force, and freedom, and propriety of manner, as regards the natural language of attitude and action. This language has its principles for the guidance of the teacher and the student as well as the artist. The attentive investigation of these principles is the only source of true and liberal instruction or useful study. From these principles rules for application necessarily flow; and it depends on the teacher and the student whether the latter shall be well and skillfully trained, neglected, or superficially taught.

Artistic Cultivation of Taste.—Provision is formally made, in many seminaries, for a more liberal allowance of cultivation for the expressive faculties, than is afforded in the mere learning to read, in the study of grammar and rhetoric, or in the practice of composition and elocution. The demands of Taste are recognized and complied with, so far as regards a certain measure of instruction in *music* and *drawing*. But, in very many seminaries, the little arbitrary and imperfect instruction which is given in these branches, is too frequently much worse than none; unless we are willing to recognize the forming of bad taste in either art as an admissible service of education.

Lessons in Drawing: Common Mistake.—Many parents and teachers never bestow a thought on the true character or proper uses of art, as a means of mental culture, or as a practical accomplishment, but labor under the false notion that a little dabbling in it, under a very ordinary instructor, is at least something gained toward refinement of taste and graceful habit. There can not be a greater error committed in education than this. Every attempt to copy an imperfect model, brings down the tone of taste, and does something to hinder the attainment of excellence. Neglect is wholesome, when compared with perversion or with false instruction.

"My daughter," says an affectionate mother, "wishes to learn drawing; and Mr. Blank is getting up a class; and I think I shall let her join. Mr. Blank's drawing is no great things, to be sure. But a little notion of drawing can do my daughter no harm, at least; and, perhaps, she may take a liking for it; and then she can find a better teacher, when it will be worth while to have one." Here are the common errors,—that there is any benefit in a little *poor* or *bad* art, or that any speck of it is not a positive blemish; that the elements of art can be taught by an incompetent teacher; and that, after having taste thus perverted, the pupil can rally, acquire new principles, and form new habits. The actual experience of most pupils thus misdirected, is the painful conviction that, without a perfect command of elements, nothing whatever can be done in art, and that every neglected false line or touch, in rudimental lessons, is sure to injure the habits of eye and hand, in all subsequent execution, besides lowering the standard of excellence, and degrading the taste of the student.

Music: Singing.—An error similar to that just mentioned, prevails with regard to instruction and practice in *music*,—more particularly, in instrumental music. The vocal department, however, is not without its many evils of erroneous conception and faulty instruction. Singing, by the formal manner in which it is sometimes taught, becomes one of the listless tasks which the juvenile pupil is compelled to perform in the routine of school duty, instead of being one of the natural enjoyments and welcome recreations of daily life, in which intellectual activity is accompanied by pleasing emotion and free expression. The young learner, who should be permitted to enter at once on the pleasure of listening to pure and perfect strains of actual music, and then to join in the attempt to execute them, in the natural training of ear and voice, is commonly detained for a long course of drilling on technical terms and arbitrary rules. Music is thus rendered a tasteless, irksome, artificial exercise to the pupil, and fails of accomplishing its main objects of quickening the ear, enlivening the feelings, moulding the voice, and cultivating the taste, by the influence of pure and beautiful examples of vocal sound, in the expression of feeling and sentiment.

Demoralizing Influence of Low Taste.—The result is still more injurious when low taste is permitted to obtrude its degrading influences on the sacred sphere of music; when song is treated as merely a form of amusement or of sport, and when the corrupting effects of gross humor and ridiculous caricature, are intentionally introduced in the lessons of an art designed to purify and elevate the soul. When to such influences there is added the express utterance of degrading and demoralizing sentiment, in the words of a piece of music selected for a school exercise, the work of the enemy who sows tares in the field, is fully accomplished; and education lends its hand to the act of helping the young mind not upward but positively downward.

Deficient and Faulty Instruction.—When the grosser evils which have been mentioned, are avoided, there are not unfrequently others, quite serious in effect, arising from the influence of imperfect cultivation and false taste in the teacher, or in the community of which the pupil is a member. Inaccurate, slovenly, and heedless execution defeats all the purposes of musical cultivation, and renders the absence of culture preferable to the possession of it. Every repetition of a fault confirms an error of perception, a perversion of feeling, or a corruption of taste, and deepens it into a vice of habit and a defect in mental character.

Instrumental Music.—The more laborious forms of culture which are indispensable to success in the performance of *instrumental* music, strike yet deeper into the taste and tendencies of the mind, as regards the character and effects of expression. Faults in this department of musical instruction, are, it is true, not so widely diffused as those which are so often displayed in the teaching of vocal music. But they are not less prejudicial to the pupil individually. The incessant and arduous application which is required of all who wish to perform successfully on any instrument, exhausts and discourages pupils who have not a true and deep love of music, together with the enduring physical vigor and muscular power which consummate execution demands. The attempt to continue practice, under such disadvantages, is more injurious than beneficial; and when the pupil is dragged through the daily infliction, the whole course ends in that miserable failure over whose multitude of sins the false charity of society is so often called to throw its mantle. In music, as in every other form of expressive art, no culture is greatly to be preferred to that which entails error and imperfection.

False Models.—The evils of defective cultivation are not less conspicuous when the pupil possesses both taste and diligence and good ability, but is misled in style, by the influence of a false model in instruction. Of late years, the facility of obtaining instruction of the best order, is greatly increased. But a fatal error is still quite current among parents, that elementary lessons do not require a high standard of perfection in the teacher, and that therefore the rudiments of music may be acquired under any supervision. In this way, vast numbers of pupils are rendered imperfect performers, for life, by wrong habits acquired in the earliest stages of instruction and practice,—habits which no subsequent reformatory training is capable of correcting.

MEANS OF CORRECTING PREVALENT ERRORS IN THE CULTIVATION OF THE EXPRESSIVE FACULTIES.

Remedial Effects of Good Instruction.—The remedy for existing evils in this as in other departments of education, lies partly, it must be acknowledged, with parents and the official guardians of public instruction; and some of the evils adverted to are confessedly beyond the sphere of the teacher's action. Still, in the actual business of teaching, even under all the impediments arising from false views of education and false plans of established procedure in instruction, much may be effected in the way of beneficial reformation, by intelligent and judicious measures on the part of the teacher, in his mode of conducting the daily lessons and exercises in those branches of instruction which are recognized and demanded by general opinion or by legislative enactment.

Examples.—Referring to the utterly deficient provision which the general plan of current education makes for the cultivation and development of the *perceptive* faculties, an enterprising and vigilant teacher will find no difficulty in inducing his pupils to take a short walk with him, for a few minutes daily, at a suitable season of the year, with a view to a little familiar conversation with them about the form and character of a *plant*,—even though but a weed on the road-side. The conversation can be easily so managed as to lead to the attentive observation and close examination of every part of the plant, as designated, first, by the name in ordinary use, and, afterward, if convenient, by the more exact term of scientific nomenclature. A microscope, such as may be easily obtained for a few dollars, will be an infallible attraction to observation and inspection, in such excursions, and will prove a most efficient assistant teacher. Curiosity, and wonder, and inquiry, once excited in this way, will cause the young mind to drink in, with delight, every item of information which falls from the lips of the teacher. Actual knowledge will thus be obtained, and its pleasure consciously felt. Feeling and emotion, the main springs of expression, are now brought into play; imagination is awakened, and, under the guidance of intelligence, will recognize the traces of beauty and skill in the handiwork of Nature. To record, in writing, what the eye has seen, and the ear heard, and the mind conceived, during such a lesson, will be no hardship of Egyptian task-work, but a pleasure and a privilege. Many a faithful teacher in our New England States, has, in this way,—without waiting for an educational millennium, in which *botany*, *composition*, and *natural theology* shall all be introduced into our common schools, by legislative authority,—"taken the responsibility," personally, and given an excellent elementary lesson in all three.

First Lessons in Spelling and Reading.—The unphilosophical and arbitrary manner in which many branches of education are actually taught, admits obviously of a remedy at the teacher's will. There is no necessity of blindly following the practice of making the child commit to memory the names of all the letters of the alphabet before he is asked to join the sounds of two, so as to read the words *he* or *me*. There is abundance of rhyme, but very little reason, in making the child read a whole column of rarely occurring and even of unintelligible words, because they all happen to have the same or similar combination of letters; while his bright eyes would sparkle with intelligence and delight, to see, in the column, a single word whose familiar sound would soon render its face as familiar. To the young learner in *the primer*, *the spelling-book*, or *the school dictionary*, the whole volume arranges itself in three classes of words: (1,) those which children of his age *understand and use*; (2,) those which they *understand*, when they hear them from the lips of older children or of adults, but which they do *not use* themselves; (3,) those which they *neither use nor understand*, but which with the aid of teacher and book, they are, in due season, to learn to understand and use aright. To follow the true order of teaching, in such circumstances, will cost the teacher no more trouble than the simple act of dotting with the pencil point, on the column of the given page of the pupil's book, those words which he finds adapted to the class-lesson of the hour, according to the intelligence and advancement of his scholars.

Phonetic and Empirical Methods.—Another expedient for the removal of impediments to successful elementary instruction, and one which the teacher can easily adopt, after having made the selection of words, as suggested above, would consist in the subdivision of each of the classes mentioned into analogous and anomalous sub-classes. All the words of the first class, for example,—those which are familiar to the child's ear and mind, by daily personal use,—are either regular or irregular, as to the combination of their letters in name and sound. The former of these sub-classes may be easily learned by the process of spelling them by the *sounds* of the letters which compose the words. Thus, in the word "page," the names of the first three letters very readily suggest their sounds, the combination of which constitutes the reading of the word. But not so with the word "gag," in which not one of all the letters suggests its own sound by the name given to it. By the principle of analogy, therefore, all words in which the name of the letter prompts the sound to the ear, may be advantageously taught by the *phonetic* method of merely articulating the sounds of the letters successively. The simplicity of this method enables children to make rapid progress in syllabication and in reading; and on the principle of allowing children the pleasure of helping themselves forward in an intelligent, conscious progress, this part of early training should never be neglected. But, even in those words which are familiar, in sense and in use, to the ears and minds of young children, there are very many in which there is little or no analogy between the names of the letters and the sounds which they receive in the pronunciation of a word or the enunciation of a syllable. The *orthography* of such words is no reliable guide to their *orthoëpy*. To name their component letters, therefore, can effect nothing further than to satisfy the teacher that the eye of the child has taken in every letter of the word before him. So far well. But, after all, the child's eye actually learns to take in such words by the letters in mass, and depends on an arbitrary effort of memory, in pronouncing them. The sooner, therefore, that the little learner acquires the habit of reading such words at sight, without puzzling himself with the confusion arising from the discrepancy between the names and the sounds of their component letters, the more easy and the more sure will be his progress.

Each of these methods of teaching, in the elementary processes of spelling and reading, is good for its own purpose;—the phonetic for the analogies of orthoëpy, and the empirical, as it may be called, for its anomalies. But the error in teaching has been the indiscriminate and exclusive use of the one or the other; in consequence of which, the learner's progress has been rendered unnecessarily difficult and tedious. The inherent difficulties of a language so irregular as the English, render the closest attention, on the part of the teacher, to every means of overcoming them, doubly important in early training.

Orthoëpy.—In this branch of instruction everything depends on the living teacher,—on the correctness of his own exemplifications and the diligence of his endeavors. Indeed, there is, commonly, no reason, but neglect on the part of the instructor, why every child at school is not daily and thoroughly trained in the exact articulation of all the elementary sounds of the English language, and in the distinct enunciation of their principal radical combinations; nor any other reason why an obsolete, awkward, or inappropriate manner of pronouncing common words should be tolerated in any stage of education.

"*School Reading.*"—A similar remark may be made, as regards the unmeaning and inexpressive style of reading, which is so current, not only in schools, but in higher seminaries and professional exercises. This fault, so commonly remarked, would not exist at any stage of education, or in any form of life, private or public, if our primary teachers were only attentive to accustom their pupils, in their very first exercises in the reading of sentences, to repeat them carefully, with a view to *the expression of sense* and not the mere pronouncing of words.

Academic Elocution.—This department of instruction is another in which the appropriate cultivation of the expressive faculties is not dependent on any change in the prescribed forms of education, so much as on the personal endeavors of the teacher. Our public speakers would not so generally utter their words in the formal tones of arbitrary pulpit style, were teachers duly attentive to point out to young *academic declaimers* the natural and appropriate vocal expression of feeling and sentiment; nor should we ever see those frenzied extravagances of passion and grotesque gesticulation, which so frequently degrade the style of popular oratory, were teachers careful to cultivate, in academic declamation, purity of taste, and true force of effect, in the utterance of emotion.

Grammatical Instruction.—Even in the teaching of *grammar*, where less scope, perhaps, is given to the discretion of the teacher, it still depends on himself whether he shall follow the precise order of topics in an ill-arranged text-book, or use his own judgment, and present the subject to the minds of his pupils in the order which he feels that an intelligent and practical study of the subject, and a rational progress in its application, demand. Nothing lies more properly within the province of the teacher, than the duty of seeing to it that his pupils thoroughly understand every word of their various lessons, and thus reap the benefit of grammar, in the perfect interpretation and right use of the current words of their own communications by speech and writing, and in the perusal of the useful productions of the press. The faithful use of an etymological spelling-book, and of the dictionary, is all the cost of an aid so valuable to the teacher, and of an attainment so valuable to the pupil.

Practical Rhetoric: School Exercises.—Training in the appropriate use of the English language, ought not to be limited to the mere grammatical exercise of composing sentences. Even in our common schools, it should extend to that cultivation of taste by which neat as well as correct expression is acquired as a habit. To cultivate, in his pupils, the power of appreciating excellence in language, it is not necessary that the teacher should refer them to a systematic treatise on rhetoric. The school reading book usually furnishes abundance of the best materials for culture, in the presentation of the best modes of composition, as exemplified in the language of the pieces prescribed as reading lessons. The very best training for the acquisition of sound judgment and good taste in expression, may easily be had, if the teacher will but secure the intelligent and voluntary action of his pupils, in frequently *analysing* portions of some of the best of such passages, in occasionally *transcribing* them, and even *committing them to memory.* The exercise of careful transcription, is, perhaps, the best practical expedient that can be found for securing that literal and mechanical correctness in the details of the written forms of language, as to orthography and punctuation, which though, indeed, but minor matters, are yet so important, as indispensable to the decencies and proprieties of style. How ineffectual, for such purposes, the common routine of education proves, none can know but persons whose business brings them into extensive observation of such particulars.

Rhetorical Exercises in higher Seminaries.—To remedy the evils arising from the narrow and artificial character of our higher forms of rhetorical culture, we need a wider scope of discipline not only in rhetoric itself, but in logic, and in the principles of taste as embodied in the æsthetics of every form of expressive art. We need, yet more, however, a special course of practical training, for which the rhetorical teacher ought justly to be held responsible,—a course which should consist in the careful and close analysis of distinguished models of successful composition, so as to trace their order and method in the arrangement of thought, the artistic character of their æsthetic light and shade and coloring, the mechanism of their sentential structure, and the aptness of their verbal expression in detail. A long and rigorous course of disciplinary exercise in such forms, would not only furnish the pen of the ready writer for the varied demands of actual life, but the requisite preparatory training for the office of public speaking, in which a ready command of well digested thought and fit expression is so important to successful effort. The student would, by such training, effectually learn the value of clear consecutive thinking, of genuine taste, of manly plainness of diction and simplicity of expression: he would be thoroughly secured from falling into the "bald, disjointed chat," the pompous harangue, the insane extravagance of emotion, and the fantastic verbiage, which are so often palmed on our popular assemblies, and lauded in our transient vehicles of criticism, as wonderful displays of original genius or oratorical power.

The Study of Language.—One very important aid to the generous culture and full development of the expressive faculties, is, as yet, very imperfectly furnished by our higher forms of liberal education. While the study of the ancient languages is formally acknowledged as one of the most efficacious methods of training the mind to a distinct perception of whatever constitutes power or perfection of expression; and while liberal provision of time and means is carefully made, with a view to secure the full benefit to be derived from the contemplation and analytical examination of these faultless models; too little attention is paid to the invaluable advantages which might be gained from a corresponding rigor of study and analysis, directed to the great authors who constitute the classics of modern literature, in foreign languages, and in our own.

The perfunctory perusal and verbal recitation of a few passages from such authors, which usually form a part of academic exercises, in this department of education, can never be seriously proposed as effecting the purposes of critical appreciation and thorough discipline.

In our highest seminaries, little is attempted beyond the processes of grammatical analysis and interpretation, in a course of literal and mechanical routine, even with regard to the ancient classics; a mere modicum of the same species of attention is usually given to the very noblest writers of Germany, France or Italy. The Spanish and the Portuguese languages are given up, for the most part, to those persons who happen to have occasion for the use of them, as a convenience in mercantile operations. The languages of the North of Europe, whose ancestral affinities with the English render them so richly instructive, as regards the full and true understanding and expert use of the most significant and expressive part of our own native language;—these, as yet, are left to an adventurous few, comparatively, —the solitary explorers and pioneers in the study of modern literature.

America, in its peculiar national position, which brings to its open homes men of all countries and of every tongue, possesses unequaled facilities for the extensive acquisition of all the benefits resulting from the study of language in its various forms; and a wide range of advantages, in this relation of culture, should be justly held as the birthright of our children, and as the characteristic distinction of our educated youth and mature scholars. Not that we would have American teachers pursue the course, which is unfortunately yet too common, of giving a superficial attention, for a few months, or a few weeks, perhaps, to one or more of the languages of modern Europe, and then attempting the task of teaching them. But, generally speaking, American teachers who wish to enjoy the advantage of teaching more intelligently and effectually their native language, in consequence of the opportunity of better understanding its character, by their ability to compare it with others,—an advantage beyond price;—most, if not all, of such teachers have easy resort to a living instructor in whatever language they desire to study, and may, in due time, become possessed in this way, of a vast amount of intellectual wealth, the benefit of which is sure to be felt, not only in their own mental action, but in the attainments of their pupils.

In the department of language, however, there is no acquirement of which teachers and pupils stand in more urgent need than that of a perfect command of correct, clear, strong, expressive English. The attention paid to this most important attainment is, as yet, utterly inadequate to the demands of a generous cultivation or those of actual life and its daily duties. Nothing is more common than this humiliating admission. Yet little is done to do away with the necessity for it. We have, it is true, of late years, made some advances toward a

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better state of things, in our educational provision of better modes of teaching grammar, synthetically as well as analytically; and, in some schools, the practical study of etymology receives a commendable degree of attention. Yet it is rare to find in any seminary that thorough analytical investigation of the words of our language which every student is expected to exemplify in his exercises on a page of the ancient classics.

The study of English words, if faithfully pursued in the daily lessons of our schools, with any thing like the application exhibited in the examination, and classifying, and arranging, and labeling of the specimens of even a very ordinary cabinet, would enrich the intellectual stores of the young and even of the mature mind, to an extent of which we can, at present, hardly form a conception. Nothing, however, short of such diligence will serve any effectual purpose. The student of his own vernacular tongue must be content to employ the same close, minute inspection, the same careful examination, the same correct designation, the same exact location and scrupulous conservation of every word that he would intelligently appreciate or skillfully use, as the mineralogist adopts in the selection and arrangement of his specimens.

Our prevalent modes of education have been so defective, as regards the means or opportunities of acquiring a proper knowledge of the English language, that the humble attainment of perfect orthography is comparatively rare, even among the "liberally" educated. Few students, even in our higher seminaries of learning, are trained to recognize and appreciate the value of an English root or primitive word, to trace a secondary to a primary sense, or a primary to its secondary, to translate a passage of Latinized English into its Saxon equivalent words of the mother-tongue, to draw the line of discrimination between present and obsolete usage in expression, to detect the nice shades of meaning in words regarded as synonymous,—to use, in fact, their own language expertly.

It is universally admitted that no language needs such processes to be applied to it so much as our own. Its vast copiousness, in consequence of its many sources, the conflicting character of these themselves, the comparatively small number of English writers who have been willing to take the pains to write correctly, so far as to merit the name of models, the contradictory usage which has, from this cause, prevailed, even among distinguished authors—all have conspired to render careful study and extensive practice indispensable to the student who would do justice to the great language which it is his birthright to inherit, for all of life's best purposes.

CULTIVATION OF THE REFLECTIVE FACULTIES.

INTRODUCTORY OBSERVATIONS.—In the preceding lectures of this series, we were occupied with the consideration of the *perceptive* and the *expressive* faculties, with a view to the plan and purposes of education. Following the historical order of development in the different classes in which the mental powers may, for such purposes, be grouped, we enter now on the study of the various modes of intellectual action which may be classed under the denomination of

REFLECTIVE FACULTIES.

Here we are met anew by a difficulty inherent in our native language, in the paucity and indefiniteness of the terms which it employs to designate the phenomena of mind. The vagueness of the phrase "reflective faculties," is a serious impediment to clearness and distinctness of conception, as regards any attempt at exact definition or satisfactory classification of intellectual acts or conditions. The term "reflective," however, if we resort once more to the serviceable aid of etymology, as a key to the interpretation of language, will prove strikingly suggestive of meaning; and, by its figurative force and peculiar significance, will atone, to some extent, for its deficiency in philosophic precision.

The term "perceptive," (literally, *taking through*,) suggests the intellectual condition in which the mind is in the act of *taking*, receiving, or forming, ideas *through* the medium of the senses. The term "expression" implies a state in which the mind is undergoing a process of *pressing*, or *being pressed*, *from within outward.* But the term "reflection," (*bending back*,) suggests, figuratively, that state or act of the mind in which it reflects, repeats, or *gives back*, *inwardly*, the images impressed upon itself,—the effects of which it is conscious, —whether produced from without or from within, whether occasioned by perception, imagination, conception, or emotion. In this condition is is implied that attention turns inward, and dwells, more or less consciously, on its internal subjects, rather than on the objects by which they may have been occasioned.

The history,—so to term it,—of intellectual action implied in the application of the word "reflective," represents the mind, as in the act of going forth from its inner self, meeting the forms of the external world, and, by the impression which these produce upon it, "reflecting," (turning back or inward,) upon itself, to contemplate and deliberately consider what it there consciously beholds. Nor does the term lose aught of its significance, when it is applied to the inward action of the mind on the phenomena of its own consciousness, when the forms of imagination, or even of pure thought itself, become so forcible as to attract and absorb the attention. The figurative word then represents the mind as turning back upon itself, to look inward, so as to ascertain and define, or consider more fully, the objects of its own creation, and to follow the trains of thought which these suggest. In either of the supposed cases,—whether the objective or the subjective world furnish the data of thought,—the result is an ultimate inward movement, which, although it may, in given instances, lead to the anticipation of external action, as a consequence, is, so far, a purely mental condition, sanctioning the popular usage which applies the term "reflection" to all modes of intellectual action which are of a strictly internal character.

Recognizing this fact of language, and pursuing our analysis of the human faculties as subjects of disciplinary culture, we now, therefore, change our field of observation, and pass from the outward spheres of perceptive observation and expressive communication to the silent, inner, invisible, spiritual, and purely intellectual region of *Thought.* We now contemplate man as made in the image of his Maker, as an intelligent and rational being; and we trace the working of those powers which ally him to "things unseen and eternal."

Following, as before, the method of observing (1,) the *forms* of mental action grouped under a given classification; (2,) their *actuating principle*, or motive force; (3,) their natural and habitual *tendency;* (4,) the *results* of their action; and (5,) the *educational processes* consequently required for their development and discipline, we proceed to a summary

(I.) ENUMERATION OF THE REFLECTIVE FACULTIES.

Memory, Conception, Consciousness, Reason, Understanding, Judgment.

Explanatory Remark.—This classification is presented not as one philosophically complete or exhaustive, but merely as a suggestive outline, for educational purposes. It is intentionally limited to the chief of those forms of mental action which may be regarded as acts or powers not only strictly interior, but *purely intellectual*, as contradistinguished from those which are concerned with the external objects and facts of *perception*, from those which consist in inward or outward movements of *feeling*, and from those which are conversant with the ideal forms and creations of the *imagination*. A more extensive classification, including the subdivisions and subordinate details of reflective intellection, will necessarily present itself at a later stage of our analysis, when we come to the consideration of the various forms of exercise to which this group of faculties is subjected in the processes of education.

(1.) MEMORY: *the Basis of Reflective Power.*—This faculty naturally claims our first attention, when we contemplate man as a being endowed with the power of reflective intelligence. It is this faculty which enables him to take the first step from the exterior and objective world into the interior and subjective. Its exercise empowers him, even in the absence of the objects of sense, to retain or to recall, for indefinite periods, and at indefinite intervals, the ideas which he derived from them. He can thus, at pleasure, dispense with the actual presence of external objects, and yet, by dwelling on them mentally, after he has withdrawn from them outwardly, pursue the trains of thought to which they give rise. As a result, he thus acquires a more intimate knowledge of their relations to his own interior being, and converts the pabulum of intelligence, furnished in the data of the outward world, into the pure elements of intellectual sustenance. The activity of this power is, in fact, the measure of his growth in mental stature and strength. It is the condition of all intelligent progress, whether we regard memory as the grand receptacle and depository of all those elements of knowledge which are at once the rudiments of intellectual life, the springs mental of action, and the material of thought, or as the chain which links the past to the present, and retains every acquisition as a foothold for the next step forward in the processes of reason and the investigation of truth.

Remembrance.—The faculty of memory, even in its comparatively passive and quiescent form of mere retention, or *remembrance*, gives man the power of holding with a firm grasp all the treasures which observation enables him to accumulate from without, and to carry them with him into that internal region of thought where they are to be assimilated to his own mental being, and become component parts of it, in transfigured forms of living power and beauty. Not only so: but even the involuntary susceptibility of this vast capacity preserves in the mind the imprint of every passing thought, every form of imagination, and every mood of feeling, which has character enough to excite his attention and recall him to himself, in the exercise of consciousness and reflection.

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(I.) ENUMERATION OF THE REFLECTIVE FACULTIES.

Memory, Conception, Consciousness, Reason, Understanding, Judgment.

Explanatory Remark.—This classification is presented not as one philosophically complete or exhaustive, but merely as a suggestive outline, for educational purposes. It is intentionally limited to the chief of those forms of mental action which may be regarded as acts or powers not only strictly interior, but *purely intellectual*, as contradistinguished from those which are concerned with the external objects and facts of *perception*, from those which consist in inward or outward movements of *feeling*, and from those which are conversant with the ideal forms and creations of the *imagination*. A more extensive classification, including the subdivisions and subordinate details of reflective intellection, will necessarily present itself at a later stage of our analysis, when we come to the consideration of the various forms of exercise to which this group of faculties is subjected in the processes of education.

(1.) MEMORY: *the Basis of Reflective Power.*—This faculty naturally claims our first attention, when we contemplate man as a being endowed with the power of reflective intelligence. It is this faculty which enables him to take the first step from the exterior and objective world into the interior and subjective. Its exercise empowers him, even in the absence of the objects of sense, to retain or to recall, for indefinite periods, and at indefinite intervals, the ideas which he derived from them. He can thus, at pleasure, dispense with the actual presence of external objects, and yet, by dwelling on them mentally, after he has withdrawn from them outwardly, pursue the trains of thought to which they give rise. As a result, he thus acquires a more intimate knowledge of their relations to his own interior being, and converts the pabulum of intelligence, furnished in the data of the outward world, into the pure elements of intellectual sustenance. The activity of this power is, in fact, the measure of his growth in mental stature and strength. It is the condition of all intelligent progress, whether we regard memory as the grand receptacle and depository of all those elements of knowledge which are at once the rudiments of intellectual life, the springs mental of action, and the material of thought, or as the chain which links the past to the present, and retains every acquisition as a foothold for the next step forward in the processes of reason and the investigation of truth.

Remembrance.—The faculty of memory, even in its comparatively passive and quiescent form of mere retention, or *remembrance*, gives man the power of holding with a firm grasp all the treasures which observation enables him to accumulate from without, and to carry them with him into that internal region of thought where they are to be assimilated to his own mental being, and become component parts of it, in transfigured forms of living power and beauty. Not only so: but even the involuntary susceptibility of this vast capacity preserves in the mind the imprint of every passing thought, every form of imagination, and every mood of feeling, which has character enough to excite his attention and recall him to himself, in the exercise of consciousness and reflection.

Intellectual and Moral Offices of Memory.—This benign retentive power gives unity to man's intellectual and moral life. It is the sure and steadfast anchor by which he grapples the present to the past, and is saved from the fluctuation and fragmentary tossing of "the ignorant present." In the wide field of culture, memory makes the mind the seed plot and garden ground of all the knowledge which human care and kindness have the skill or the power to drop into it. Fertilized by the genial influences of well directed education, the retentive capacity of memory becomes rich in every precious and noble product of mind by which the intellectual life of the world is nourished and sustained.

But it is as an element of intellectual and moral power in human *character*, that this faculty reveals its chief value. Its very nature and tendency is to constitute man a *reflective* being, by withdrawing him from the influence of a too exclusive regard to the present and the external; by soliciting his attention to the profoundest verities of his own intelligent and immortal being; and by balancing the stern realities of experience against the sometimes fallacious solicitations of hope, or the grave actualities of the past against the doubtful promises of the future. It prompts to *thought*, and leads to security amidst uncertainty and distraction. It invites to reflective *meditation*, by the suggestive materials in which it abounds. It cherishes *contemplation*, by opening to the mind's eye the long vista of the past with its fast-linked trains of scene and incident and action, and the ineffaceable impressions which all these have graven upon the heart. It tends to make man a considerate and thoughtful being, by the faithful monitions which it furnishes to the lips of wisdom warning against the errors of judgment or of will, by reminding of their penalties formerly incurred.

Remembrance saves from the domineering ascendency and absorbing attractions of the sensuous and the transient, by intermingling with the fluidity and evanescence of the present the solidity and permanence of the past. It thus tends to give gravity and weight to character; and if its influence is sometimes a shade too sombre for gayety, it contributes a not undesirable element to the sternness of manhood, as a safeguard to the firmness of will. Its office is, in this respect, a preventive one,—to save man from the instability which the exclusive influence of things present and things outward might induce; and, by attracting him inward to himself, it favors the acquisition of that self-knowledge which is the anchor of his safety.

Recollection.—This term is but another name for the faculty of memory, and merely intimates that the impressions made on the mind by a given object, scene, or event, may have been, for a time, effaced, or its elements dispersed, by the intervention of other agencies; and that, with or without an effort of the will to that effect, but by the operation of some law of mental association, the idea recurs or returns, as it were, and, perhaps, unexpectedly and suddenly, to the mind. We are then said to "recollect," (*gather again,*) or recall what had, for a season, escaped the retentive hold of memory.

The very abruptness and suddenness of the transition of thought, in such instances, exerts a peculiar power on the reflective action of the mind, and makes it more striking, more impressive, and more effectual. Recollection may thus light up the soul with the instantaneous gleam of a rekindled thought, or plunge it into the depths of a past grief; or it may arrest the will on the very brink of remembered evil. A long train of profound reflections may thus be suggested, which may exert an influence on the character of a whole life.

A mere flash of reflection has sometimes sufficed, by the instant recalling of scenes of childhood's innocent enjoyment, or the injunctions of parental wisdom and love to reinstate conscience on its rightful throne, and bring back the tempted to himself, or to restrain him from the first steps of a career of ruin. A remembered promise, pledging honor and truth, has sometimes risen up as a barrier against an approaching tide of overwhelming guilt. A verse of sacred Scripture, darting across the mind, has checked the hand already stretched out to do the deed of wickedness which no after tears of penitence could have sufficed to wash out.

But not as a *preventive* only does memory thus subserve man's highest interests: its recurring suggestions are not less frequently inspiring *prompters* to every form of virtue. To the dispirited traveler on the pathway of life, it comes, sometimes, as an inspiring angel, with messages of cheering and encouragement drawn from the remembered virtues of the struggling great and good who have gone before. It points him to "their footprints on the sands of time," and bids him "take heart again." It reminds him that his great reliance is not on the outward and the material, but on that "hidden strength" of which our greatest poet speaks so eloquently. The maxim or the motto which the guardian care of the mother or the teacher had engraven as a watchword on the tablet of the heart, in early years, recurs, sometimes, to incite to noble deeds or noble enduring, the man encompassed by difficulties and dangers before which he would otherwise have staggered. The "one, last, best effort, more," which wins the crown of victory, is that, not unfrequently, which follows the backward glance of memory to the parting scene, and farewell words of a parent's blessing.

Memory as a Subject of Cultivation.—In either form, whether that of retentive remembrance or momentary recollection, memory furnishes the material, and solicits the action, of the whole class of reflective faculties. To the educator, therefore, the judicious cultivation and development of this capacity, in the minds committed to his care, becomes a matter of vital moment, that the impressible memory of the young may be rich in valuable resources, and strong for the aid of every good purpose, sound and healthy in its action, firm in its grasp, and prompt to yield up its acquisitions when in demand for intellectual emergencies.

The true teacher will be careful that this indispensable servant of the mind be not exhausted by overwork, that its strength be not expended on worthless material, that its receptive capacity be not crammed to unhealthful and unprofitable repletion, at the expense of inaction and inanity to all the other capacities of the mind. But of the appropriate modes of exercise for the cultivation of this faculty, we shall have occasion to speak more fully under the head of educational processes.

(2.) CONCEPTION : *Etymological Sense of the Word.*—The primitive signification of this term implies that the mind has the power of "taking" (*receiving*, or *forming*,) ideas "with," (*within*,) itself, whether on data furnished from without, and by the alchemy of mind, transmuted into intellectual forms, or on materials found within itself, originating in feeling or in thought, partaking of its own character, and wearing forms purely ideal. In the process of intelligence, *conception* presents itself as the counterpart of *perception*, performing, in the interior world of thought, an office similar to that of the latter in the domain of exterior observation.

Its Proper Acceptation.—The term "conception," in its full and proper acceptation, comprehends the action of the mind in the intelligent contemplation or cognition of any object or subject in the whole range of the ideal world. It applies to the recognition or creation of the forms of imagination and the figures of fancy, not less than to the ideas of pure intellection. In the former relation, it stands connected with the action of the expressive faculties, as discussed in a previous lecture; but it is in the latter sense, as a contemplative and reflective faculty, that we now regard it. In this connection, it approaches, sometimes to the sphere of memory, and draws from that source the materials on which it acts,—whether these were originally external or internal in their origin.

Different Views of this Faculty.—Contemplated in the light last mentioned, the faculty of conception has, by some eminent writers on intellectual philosophy, been considered as identical with *memory;* while, by others, its definite action on forms furnished by *imagination*, has been regarded as identifying it with that faculty. Hence, we read of the "conceptions of memory," and the "conceptions of imagination." A third class of authors treating of intellectual topics, evidently regard conception as simply an act of the understanding.

The unsatisfactory character of popular usage in our own tongue, as regards the application of language to mental phenomena, is strikingly exhibited in the several arbitrary senses in which the term "conception" is used, as suggesting imperfection, dimness, or remoteness in the objects or subjects of contemplation. We can not, therefore, rely on any consentaneous use of nomenclature as a guide to the character or action of the faculty in question. Adverting, however, to the highly suggestive etymological sense of the term "conception," as it has been employed in the metaphysical vocabulary of all nations, for successive ages, we find the susceptive intellect figuratively represented by it as—when in the act of forming ideas—*impregnated*, or fertilized, not only from the various sources of intelligence furnished by the external world of perception and the interior spheres of feeling and imagination, but as possessing a *self-vivifying* power of creating and contemplating an inner world of its own, more or less analogous to that without, though formed of materials purely intellectual and spiritual;—a condition which is exemplified in the exercises of its own conscious intuition, in the sequences of thought, and in the processes of reasoning. Nor is the independent power of this faculty in any case more distinctly perceptible than when, borrowing the congenial aid of reason, it inspires with intelligence, and moulds into symmetry the fluctuating forms of imagination which hover in the ideal atmosphere.

This strictly interior power of the mind may be regarded as the first step in its consciously reflective action, in which,—not as in the partly involuntary condition of mere remembrance or recollection, it is comparatively passive, or works under a law of necessity,—but voluntarily and deliberately coöperates with impressions received from without, with a consciousness of their tendencies and of its own action. It is this power which virtually confers on man a world of his own,—an intelligent sphere of activity, independent, for the time, of the external universe in which he moves,—a sphere in which his higher intellectual and moral nature has its appropriate scope. The strength, the clearness, and the precision with which this faculty acts, determine his rank in the scale of intelligence and moral power.

Its Susceptibility of Cultivation.—In the relations of educational culture, the exercise of this faculty becomes a subject of deepest interest to those whose office it is to train the mind to true and effective habits of action. Nothing, indeed, can give a more impressive view of the benefits of proper cultivation, or of the susceptibility of this faculty to the influence of culture, than the contrast between the feeble and futile efforts of the child to form an adequate conception of the causes of the most ordinary phenomena of daily life, and the comprehensive grasp of conceptive intelligence with which the mature mind of man reads the great volume of facts and their relations, and interprets their most hidden laws. A similar contrast is exhibited to us in the wondering ignorance of the savage, contemplating the varying aspects of nature, and the man of science, to whom they present themselves as necessary results, thoroughly understood, and as verifications of philosophic theory.

The mere perceptions of the child or of the savage may often be more exact than those of the philosopher, because these depend on the freshness and vividness of sensation. But the *conceptive* power of the mind is, to a great extent, the result of the force of processes purely mental, and the skill and exactness with which these are conducted. In such operations, practice and discipline alone can yield perfection as a result; and for success in them the candidate must look to the sustaining aid and the crowning hand of education.

If we would form even the humblest idea of the mental value of the power of conception, we must refer to all that man has achieved in the acquisition of knowledge or the attainment of truth; we must advert to all the relations which he sustains to things lying beyond the sphere of sense, in the wide regions of opinion, of theory, and of sentiment; we must include his views of his own position in the universe, his views of the character of Deity, of the immortality of the soul, of the obligations of duty, of his social and civil life, and of all the institutions to which his conceptions of these various relations have given origin.

It is in these wider and higher references that conception, as a power of reflective intelligence, indicates its peculiar rank and office. Working by the blended lights of reason and of consciousness, it enables man to construct the fabrics of science and of character, by a consecutive progress of attainments in which every deposit becomes but a substratum for another in the series of an indefinite succession.

(3.) CONSCIOUSNESS: *Etymology of the Term.*—The etymological signification of this term invites our attention for a moment, to the peculiar suggestive value of the first element in the composition of the word. Primitively, the meaning of this element is fully given by the equivalent term *together*, always implying a reference to *duality* or *plurality*. It ranges, accordingly, over the whole class of synonyms which may be grouped under the terms, "collation," "apposition," "union." In the use, therefore, of the term "consciousness,"—since the *root* of the word signifies *knowledge*, or intelligence,—the mind is represented as acting *together* with, or in *union* with, itself—that is, with *self-intelligence*. The prefix of the term, in this instance, accordinglv. as in that of the word "conception," has the virtual significance of *inner*, *inward*, or *interior*, and suggests the idea of the mind acting on itself, on the objects of its own creation, or on the subjects of its own reflective conceptions.

Fitness of its Application.—There is a striking appropriateness, in this view, of the term "consciousness" as a designation for that power by which the mind becomes capable of momentarily detaching, as it were, from itself the idea of its contemplation, and working as a two-fold power; one effort of which is to hold up the ideal object, and the other to direct a wakeful and conscious attention to it, for some purpose of examination or reflective inquiry. The intelligent principle thus works—according to the interpretation of the term—*together* with, or in union with itself, in the compound or two-fold action of *conception*, and *attention*; the latter being introverted, so that the mind is aware of its own condition.

The peculiar fitness of the term in question becomes yet more distinctly apparent, when we advert to the common fact of experience, that, in the outward tendencies of the faculty of perception, the attraction of external objects is often so powerful and absorbing as to cause the mind to "lose its consciousness" in the contemplation of what it beholds, and to forget, for a time, its own existence, in the force of the attraction by which it is evoked, or the intensity of the excitement to which it is subjected, and which it temporarily identifies with the object of its attention. In the state of consciousness, on the other hand, the mind is *self-possessed*; it is *aware* of its own state of thought or feeling, and *voluntarily* dwells on the fact of introversion.

Different Opinions on the Nature of this Faculty.—Consciousness, as a term applied to the designation of a mental faculty of the reflective class, is, like many other terms in the nomenclature of intellectual analysis, a confessedly imperfect yet significant attempt to suggest a perfect recoginition of an act or state purely internal. The imperfection here felt, attends more or less obviously, yet unavoidably, every attempt to define the action of mind,—that transcendent power whose subtle agency often proves too fine for the grasp of its human representative, language, an interpreter whose terms are all, in consequence of the limitations of humanity, "of the earth, earthy."

The diversity of opinion among intellectual philosophers, therefore, on the nature of this power, is not surprising. Some would ignore its existence as a cognizable faculty, and identify it with the mere reflex act of attention; others elaborate its action in detail, so as to identify it with voluntary and prolonged reflection. Both these classes of observers evidently take the ground that it is dependent on the exercise, more or less active, of the will. But the painful act of consciousness in the experience of corporal or mental suffering, is often altogether involuntary, and resists, sometimes, the strongest efforts of the will, even in the loftiest moods of heroism itself; and the intellectual attraction of a mathematical problem, or a metaphysical question, will fascinate the conscious thinker, and draw him on involuntarily, from stage to stage of its processes, till, in the poet's language, he "forgets himself to marble."

Other authorities on topics of intellectual philosophy, have deemed it more rational to assume that consciousness is an inseparable attribute of intelligence,—necessary to its very existence. They represent it as the element which constitutes the dividing line between thought and mere reverie, between judgment and imagination, or, sometimes, between reason and insanity.

Educational View of this Faculty.—For the preliminary analysis which the intelligent conductor of education requires as his guide in the planning of his procedure, it is sufficient, perhaps, to take the acknowledged ground that consciousness is that state, act, or operation of the mind in which it is aware of its own activity. He will, from this view of the subject, derive two most important conclusions: (1,) that the vividness and distinctness of consciousness must always be in proportion to the clearness, exactness, and force of the ideas which are, so to speak, impressed on the mind from without, and solicit its conscious action as subjects of thought; and (2,) that the definiteness, the fullness, and the depth of consciousness, must always be in proportion to the power of directing and controlling the attention of the mind with reference to its own inward acts and conditions.

Intellectual and Moral Offices of Consciousness.—It is thus that consciousness assumes its true place as a reflective faculty, in the relations of intellect, as the power by which the mind learns to see clearly with its own inner eye, to define with accuracy the ideas which conception creates, to interpret nature's innermost secrets of causation, to follow the lengthening processes of reason, in the profoundest depths of investigation, and so to construct the magnificent fabrics of pure science. The reflective power of consciousness becomes yet more impressive to us, when we regard its vast influence on the moral relations of mental action. It then reveals itself as an agent but a little lower than the divine element of *conscience*, and as the very condition of the paramount influence of that power over heart, will, action, and character. In the unconscious condition of childhood, and in the immaturity of experience, conscience moves with the light step, and the gentle hand and the soft accents of the guiding angel of Innocence. But it watches with a jealous eye, restrains with a firm hand, controls with the tone of command, or rebukes with the voice of reproach, the conscious agent who, in maturity of years, departs from the path of rectitude. But not in the stern monitions or the agonizing inflictions of remorse alone, does conscience act on consciousness. The sting and the lash are not its only implements of discipline. Conscience appeals to man's conscious power for good, when it uses "the spur which the clear spirit doth raise," and reminds him of his position "but a little lower than the angels," his resources of intellect, his moral ability, his relations of duty, his capacity of ceaseless progress, his desire to win the crown of excellence, his obligations to the Author of his being, and his aspirations after an immortality of glory.

Educational Culture of this Faculty.—The educator, therefore, while he would guard his pupils against that selfish and morbid consciousness which dwells exclusively on the condition of the individual, and keeps him forever in the abstracted mood of introspection and introversion, shut up in the cell of self, and withdrawn from usefulness to others, will use all salutary measures to give vigor and life and full activity to this powerful element of mental action and character.

(4.) REASON: *Explanatory Remark.*—The successive changes which, in the progress of time, are produced on the original meanings of words, will sometimes render a literal adoption of the primitive sense of any term an uncertain guide in metaphysical investigations connected with the action and phenomena of mind. A due regard, however, to the etymological structure of terms employed to designate the intellectual faculties, will always serve to suggest useful ideas for the guidance and direction of education. Such terms, it is not to be forgotten, had their origin in simple and primitive states of human life and character, and are therefore exempt from the uncertainty and ambiguity resulting from the mental condition of more advanced stages of society, in which opinion is refined, by false as well as true culture, into more subtle and more sceptical forms, and sometimes falls into the entangling web of sophistry and false judgment. The primitive uses of language betray, it must be acknowledged, the historical childhood of man; but they possess, also, the truthfulness, the simplicity, and the directness of that stage; and their vivacious and figurative character always render them strikingly suggestive. In philosophic investigations connected with the analytic study of mind and the adaptation of modes of culture to mental discipline and development, the primitive signification of terms, whether it be literal or figurative, becomes, at least, an index to analysis, which, if faithfully traced, may lead to true and satisfactory conclusions on topics otherwise obscure and uncertain.

Etymology of the Term.—To apply this remark to the instance before us. Clearer conceptions and juster views of the faculty which we designate by the term "reason," would generally prevail, and would exert a corresponding influence on modes of mental culture, were the original meaning of the word adverted to in discussions connected with these subjects. The word "reason" is but the Latin scientific term "*ratio*," so familiar to the ear and mind of every teacher and every student of mathematics. It has merely undergone some slight modifications in passing from the Latin language, through the French, into our own. Its original sense, therefore, suggests the idea of *rate*, *measure*, or computation, as a conscious application, or act, of intelligence; and if we would trace the simplest and purest form of reason, we thus find it in the act of recognizing or constituting *rate*, or *ratio*, which in complicated processes, becomes *proportion*, or *symmetry*.

Reason characterized by the Definiteness and Certainty of its Action.—The idea suggested by the primary application of the term "reason," is that of *definiteness* and *exactness* of observation, carried even to the extent of examination by actual *measurement* or computation. No certainty of knowledge can be greater than what is thus intimated, when the inner action of intellect is verified by a direct appeal to objective reality attested by sense; and, in the legitimate uses of language, the measured exactness of verified observation is figuratively transferred to the decisions of judgment and the deductions of reason, in the comparison and examination of ideas and conceptions begun, continued, and ended, within the mind itself.

The processes of thought conducted on this firm ground, possess a definiteness which places the conclusions of reason in striking contrast with the comparatively vague and indefinite intimations of *feeling*, around which the boundary line of distinction can not with certainty be drawn, even in the most vivid states of consciousness. The ideas of reason stand thus contrasted, also, with those of *imagination*, which are often shadowy and indefinite; inexact, or inadequate, and always comparatively fleeting and uncertain;—sometimes, unreal and false, the mere flitting phantoms of fancy. The purely intellectual conceptions of reason, as subjects of the mind's own inner *consciousness*, are, yet further, distinguished from the merely *perceptive* action of sense and understanding, in the relations of intelligence directed to the *external* world. Reason, working on data strictly mental, ever partakes of the certainty of *personal* knowledge and *conviction*, which, to the individual,—whatever it may be to others,—is, in its proper relations, the surest of all the grounds of mental action. Our senses, we are aware, may misinform us: our conscious experience can not.

Offices of Reason in Definition and Discrimination.—This faculty, by the measured accuracy of its action, becomes the means of *defining* our ideas and *discriminating* them in differential detail. It groups them in the *genera* and *species* of orderly *classification*, and *analyses* the complex into the simple, even to the minutest individual element of the compound. It thus enables the mind to search and scrutinize the obscure or the uncertain, till every object is brought out into the light of certainty and conscious knowledege. In these, as in all other forms in which this faculty is exerted, the appropriateness of the primary application of the term by which it is designated, is distinctly perceived. In all its operations, it is stable, sure, exact, to absolute certainty. It was in virtue of its authority that the great modern philosopher "carried," as has been happily said, "the measuring line to the boundary of creation;" and all its inward and conscious exercises partake of the same exactitude.

Reason, an Authoritative Power.—When this faculty condescends to its humbler offices of recognizing the intimations of sense, and accumulating the deposits of knowledge, and maintains a comparatively quiescent, receptive, or passive condition, it bears the unassuming designation of "understanding;" as it is then regarded as merely furnishing the *groundwork*, or under stratum, of intelligence. But when it assumes the higher office of deciding on and determining the exact relations of thought, it is honored by the highly figurative appellation of "judgment"—a term the etymology of which implies the enunciation of *right*, or *justice*, and hence, whatever, also, is implied in its synonyms, *decree*, *sentence*, or *decision*. Reason, when thus occupied in comparing, measuring, or exactly estimating things or their relations, is, by the use of language, personified as the *judge*, whose office it is to *scrutinize*, *compare*, and *balance evidence*, so as ultimately to *decide* or *determine*, and give *judgment*, *sentence*, or *decree*, according to the usage of ancient times, when it was that officer's prerogative to discharge the office assigned to our modern juries, as well as that still recognized as proper to him who presides in the court of justice.

When this master faculty of human intelligence soars to a yet higher pitch, and its action, whether "intuitive or discursive," embraces great and *general principles*, sees or traces the relations of *necessary* and *universal truths*, and announces the majesty of *causation* and of *law*, it resumes its wonted designation of *reason*,—a term too limited for the scope and grandeur of its action, and the dignity of its office, as man's highest functions, in the relations of intellect.

True, it fails whenever it would usurp the appointed place of *conscience*, and *reason* man into perfect rectitude, or when it presumes to supersede the guardian office of *faith*, and offers man the guidance of mere intellection to the recognition of a paternal God. But, limited as it is, by the conditions of humanity, it still is, within the sphere of pure intelligence, that which reflects in man the image of God, and to which, in healthy and normal conditions, all his other intellectual powers pay homage.

Reason as cognizant of Relations.—Reverting to the primitive sense of the term "reason," as recognized in the application of the word "ratio" to processes of measurement connected with time and space, and figuratively transferred to operations purely intellectual, we are reminded that, in all such processes, one object or subject is *referred* to another, with a view to determine or define a *connection* of some sort or other between them. This fact accounts for the usage in language by which reason is represented as the faculty which takes cognizance of, or traces, *relations* in general, or, in other words, refers one thing to another, for purposes of *examination*, *comparison*, or *investigation*, with a view to ascertain their *connection*, or their *independence* of each other, as an element of thought essential to the acquisition of knowledge or to the discovery of truth. The mind is thus introduced into a sphere of action coëxtensive with all the outward objects and inward subjects of thought, and expatiates, with the delight of conscious freedom and power, in the two great domains with which it is endowed as its heritage and birth-right; for reason, not less than imagination is an *excursive* faculty, designed to give amplitude and expansion to the being of man; and many of the grandest creations of the latter, are those which it achieves when following the sure and firm steps of the former, in its excursions into the unexplored.

Reason as an Inventive Faculty.—The reference of one object or idea to another, the comparison of one with another, or the discovered relation of one to another, yields within the mind itself, as a result, a *third* idea, or conception, a creation of its own. Reason thus becomes a combining, creative, and inventive, (*finding*,) faculty, not less than imagination is, in its peculiar sphere; and, by following its well ascertained discoveries through their long and complicated successions of ever fresh-springing truth, attains, at length, the conscious power to move in new spheres of knowledge, created by its own activity, and in which it furnishes its own material, and erects its own structures. It is thus that it empowers man to fulfill the poet's condition of "erecting himself above himself." Reason, not less than its noble kindred powers, Faith and Imagination, is then justly said to "soar."

In the processes of investigation in which the mind pursues its quest of knowledge as the guide to truth, reason becomes the master key of intelligence, the paramount authority of intellect, the law which gives order and unity to man's intellectual being, the crown and glory of humanity in its distinctive supremacy over the lower tribes of partially intelligent nature.

Aberration of Reason.—When disease or passion has beclouded, or disturbed, or deranged this power, which heaven has ordained as the *executive* of its own first law of *order*, in the gradations of intelligence, man is then dethroned and discrowned; and, with the eye of his mind extinguished, wanders, like the blind champion of old, seeking some one to lead him by the hand.

Reason in the processes of Analysis and Abstraction.—When this faculty is occupied with the processes of collating and comparing, for purposes of discrimination, its action assumes the form of "analysis," (*loosening*, *detaching*, or *resolving*,) so as to simplify the objects or subjects of contemplation, and scan their utmost details of individuality, in character, that the component elements of the concrete may be distinctly recognized, in all their differential relations. Subjected to this process, the *genus*, or general class, is reduced to its component *species*, and these, in turn, to the *varieties* or the *individuals* of which they consist. Last of all, the scrutiny must be extended to the difference between individual and individual, or where still more minute examination is required, to the distinctive elements which may be found comprised within the unity of the individual.

Such, in our previous discussion of subjects involved in the theory of education, we found to be the requisite action of the mind in the exercise of the *perceptive* faculties, when observation descends to the minutiæ of difference on which true distinctions are founded. A similar operation goes on in the interior world of conception, when the *reflective* faculties are called into their peculiar province, when the complex ideas or thoughts of the mind are subjected to the processes of scrutiny and analysis, and the qualities of objects, or of ideas, are, by an act of *abstraction*, (*taking away, withdrawing*,) considered separately, as if they had for the moment, an independent existence. One quality of an object, one attribute of a subject, is, by this concentrated and exclusive act of attention, "abstracted," (*drawn away*,) or detached, mentally, from the object itself, and from all the other qualities of which it is possessed. The mind is, in consequence of this act of "abstraction," enabled to contemplate more distinctly, or to examine more closely and discriminate more exactly, the given quality. The quality so discriminated may, in turn, become the groundwork of classification, or the commencement of a train of abstract reasoning on broad and general principles connected with the laws of nature and the truths of science.

Intuition.—The immediate action of reason by which it assents to self-evident and necessary truths, on mere "intuition," (*inspection or sight*,) without the aid of any intermediate or intervening thought for the discovery of sameness or difference, might, at first view, seem to be improperly introduced in a survey of the reflective faculties or of educational processes for development. But, the *intuitive* exercise of reason is, not unfrequently, the basis of its *reflective* action, and, sometimes, is the *authority* to which it appeals, when prosecuting examination and inquiry to the profoundest depths of research.

Processes of Inference and Deduction.—Reason, as the faculty by which one object or idea is referred to another, in virtue of some real or supposed connection existing between them, takes cognizance of *antecedence* and *consequence;* and, when this relation is, in given circumstances, observed to be uniform, reason, working by the great law of *analogy*, "infers," (*brings in*,) the *continuance* of this uniformity as a necessary principle or law of *order*. In such instances, this "inference," supported by the undeviating testimony of personal or accredited experience, becomes a firm *belief*, which identifies uniformity of antecedence with the power of *causation*, and uniformity of sequence with the character of *effect*. *Sequence* thus becomes the law of rational *connection*, and a security for the attainment of *truth* in matters of *theory* referring to the *external* universe.

In the consecutive *internal* acts of mind, reason gives "sequence" to the relations of *thought*, in exercises purely *discursive* and *intellectual*, by recognizing the dependence of one idea or conception on another, in the relation of *effect* to *cause*. From one defined antecedent idea the mind is authorized to "infer" another, as a *consequence;* from "premises," (*thoughts antecedent*,) to "deduce," (*draw down, derive*,) "conclusions," (*closes*,) results, or final consequences; and thus, by giving *certainty* to *opinion* and *assurance* to *belief*, in relations purely *mental*, it forges the successive links of that golden chain of *intellectual necessity* which binds together the elements of the *moral* world.

Reason, in its processes of Generalization and Induction.—In the wider action of this sovereign power, it takes that highest course of which human intellect is capable; and, in tracing the relations of *causation*, aspires, by its power of *generalization* and its processes of *induction*, to announce and interpret the *laws* of the universe, and to read the evidences of a First ordaining Cause.

In these excursions, reason gathers in, from the vast field of analogy, *corresponding* facts and relations; and, in virtue of that pervading *unity* which comparison has enabled it to discover as existing among them, recognizes that spacious principle of *generality* coëxtensive with its own capacities of thought, by which it rises above the limits of the concrete and the particular to the contemplation of those abstract ideas and comprehensive principles which constitute the prime elements of intellectual and moral truth, and which bear the stamp of supremacy and the inscription of Law, human or Divine.

Not less impressive or sublime is the action of this august faculty of the human soul, when it puts forth its *constructive* power, and, aided by the scrutiny of patient experiment, it verifies the analogies of phenomena and of fact, "inducts" them, (*leads* them,) into their appropriate groups of *affinity* and *correlation*, plies them with its tentative, magnetic, aggregating power of "hypothesis," (*theoretic, interrogative assumption*,) and, by careful *induction*, at last consummates the vast fabric of "theory," (*intellectual vision*,) whose foundations are laid in the certainty of *knowledge*, and whose walls rise, in the symmetry of *truth*, to heights which inspire the mind with awe.

Ratiocination.—In the dimness of abstract conceptions, in the obscurity of abstruse relations of thought, or in the apparent conflict of contrasted truths, when the eviction of hidden causes, or when the detection of intermediate and reconciling principles, becomes essential to the conscious recognition of ideas, to the distinct conception of relations, or to the firm conviction of truth, reason comes to the mind laboring under *uncertainty*, and brings the aid of its *discursive* processes of *ratiocination*, in the form of *dissertation, argument, discussion*, and *debate*. Assuming the seat of *judgment*, it thus institutes *inquiry*, conducts *examination*, prosecutes *investigation*, *discriminates terms*, *scrutinizes allegations*, *compares* conflicting *arguments*, *weighs* opposing *evidence*, *judges* of *facts*, *rejects assumptions*, *exposes error*, *detects truth* or *falsehood*, and pronounces its authoritive and final *decision*, as the inevitable *law* of intellection.

Reason, as cognizant of Truth.—Reason, in its judicial capacity, traces, or recognizes and announces, the correspondence or the discrepance of idea with object, thought with fact, conception with conception, principle with principle, proposition with proposition, sentiment with sentiment, opinion and statement with fact, language with thought, argument with argument, effect with cause. It thus, by the eviction of *truth*, produces in the mind the result of *conviction;* and *truth*, as the consummated and perfect result of the action of *reason*, in its cognizance of the ascertained relations of *knowledge*, demands, in virtue of the supremacy and authority of the faculty by whose agency it is discovered, the assent of the mind, in the form which we term *belief*,—not a bare comprehension or merely passive reception by the *understanding*, not the mere negative acquiescence or silent admission of the *judgment*, but the consentaneous recognition and adoption which come from the *voluntary* action of *reason*, uniting itself with the subject of its contemplation, and identifying with it all its own consequent action. Reason, therefore, has to do with all the preliminary processes by which truth is established; and in the moral not less than in the intellectual relations of thought, has, for its office, the sifting of *evidence*, the scrutiny of *testimony*, the weighing of *proof;* on the validity of all which, *belief*, as the normal and healthy tendency of the mind, is conditioned. In the yet higher sphere of Sacred truth, belief becomes subsidiary to the Faith which *trusts*.

Reason, as susceptible of Cultivation.—As the subject of disciplinary culture, this faculty presents itself to the educator as that to which his chief attention is due, in the relations of intellect, not only from its supremacy in the class of faculties to which it belongs, and the fact of its being the very constituent of intelligence, but from its peculiar susceptibility of development and training, and the extent to which it may be rendered clear, decisive, vigorous, and comprehensive, by appropriate exercise. No faculty reveals more distinctly than this the progressive character of man, as an intelligent agent, if we advert to its dim, uncertain, and feeble action in childhood, and its ceaseless growth in soundness, clearness, and vigor, as life advances to its maturity. But when we contrast the reasoning powers of such individuals as Newton, Locke, Butler, or Edwards, in manhood, with the mere germ of latent capability which they possessed in infancy, we perceive yet more distinctly what education may accomplish for the eduction and strengthening of this powerful element in the mental constitution of man.

The cultivation of this faculty becomes yet more important in its results, when we advert to its value in the relation of morals. Reason is naturally the firm ally of *conscience*, in discriminating between *right* and *wrong*, and in instituting those reflective trains of thought by which man is arrested in the pursuit of sensual gratification, and called home to himself, in the conscious exercise of higher faculties, in the enjoyment of truer satisfactions, and in obedience to the rectitude which he feels to be the great law of his being. Reason, in coöperation with conscience, then becomes the regulating principle of his actions; raising them from mere obedience to *prudence* and *judgment*, and conservative *propriety*, to the higher influences of *self-intelligence*, *consentaneous action*, and *rational conformity* with the *laws* and *conditions* of *his own nature*, and of the Power by which those laws were ordained. Reason is the eye by which he learns to read the volume of revelation,—whether that written in the language of the "elder Scripture," which speaks of the "eternal power and godhead of the Creator," or that of the recorded Word which makes man "wise unto salvation."

(5. and 6.) JUDGMENT AND UNDERSTANDING: *their Identity with Reason.*—It has been justly remarked by an eminent writer on intellectual philosophy, that, in arbitrarily multiplying the number of faculties attributed to the mind, we confuse our own views of mental action, and lose rather than gain by such uses of analysis. In the prosecution of our present inquiries, it will be recollected, that it has been uniformly our endeavor to keep in mind the absolute *unity* of intellection, under whatever apparent diversity of processes it conducts its action; and the preceding observations on *reason*, as a reflective faculty, have, it may have been perceived, presented the operations of *judgment* and *understanding* as virtually but different functions of *reason*. To venture on a figure drawn from the sciences of observation: *Reason* may be regarded as bearing the relation of "genus" to *judgment* and *understanding* as "species." Reason surveys the whole ground of intellection, whether directed outward or inward; it works in the great field of *analogy*, and on the common ground of *correlation*, *cotendency* and *consistency*, in the universal sphere of thought. In its comprehensive action, it proclaims the *harmonies* of the universe. It has the power, therefore, of *investigating* and *proving analogies*, and, consequently, of *rejecting discordant elements*. Descending to this task, reason becomes, in the vocabulary of intellection, "judgment." Stooping yet lower, to *trace* and *verify relations of humbler value*, or of *exterior character*, or processes of *passive reception of knowledge* or of *truth*, it assumes the lower office and familiar name of "understanding."

Maintaining the justness of this definition of the faculty of reason, we would not, however, overlook the fact, so important to the right management of education, that the more closely we watch the operations of intellect, the more searching the investigation, and the more minute our analysis, we shall be the better prepared to minister to the manifold wants of the mind, and to its healthful development. The subdivision of *reason* into "judgment" and "understanding," if taken as merely a temporary assumption of *theory*, with a view to fuller provision for mental action and discipline, can not be objected to; and, indeed, the common branches of useful knowledge and of scientific acquirement which constitute the material and media of intellectual education, address themselves distinctively to that classification of the mental faculties which is commonly adopted or recognized. Of these we shall have occasion to speak, when discussing the modes and processes of culture. Nor can any detriment to a just view of mind as subjected to invigorating discipline, arise from adopting, for the time, that more comprehensive classification of the forms of mental action, which is now proposed.

An extensive course of study in every department of mental philosophy, can not be too earnestly urged on the attention of all teachers who are so situated as to exert a controlling or directing influence on the plan of education, or to enjoy adequate opportunities of pursuing a full course of professional reading. No serious evil will in this way be incurred, even if the teacher become, in consequence of his studies, the disciple of a particular school of metaphysics or psychology; provided he do not lose sight of the great fact that, as a teacher, he is called to work as a personal and original observer of the actual workings and tendencies of the young mind itself, and, as its guide and director, to proceed according to his own personal observation and convictions, independently of all theories and speculations of a merely abstract character.

One of the greatest metaphysicians of modern times*—who, more than any writer or teacher on his class of subjects, is entitled to the rank of an authority—who, to a depth of research and a profoundness of learning which man has seldom attained, adds the simplicity, the docility, and the candor of a child in the attitude of inquiry—has most justly said to the student of mental philosophy: "If he only effectively pursue the method of observation and analysis, he may even dispense with the study of philosophical systems. This is, at best, only useful as a mean toward a deeper and more varied study of himself, and is often only a tribute paid by philosophy to erudition." With the same characteristic frankness he remarks, in another connection, that psychology (the direct study of mind) is yet incomplete as a science; since the phenomena of which it takes cognizance have not yet been exhaustively enumerated or defined, and speaks, at the same time, of the service which, in this respect, might be rendered to philosophy by adequate investigation and faithful reporting.

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* Sir William Hamilton.

To so noble an office no candidate can more justly aspire than the intelligent teacher. His occupation renders him conversant with mind in its purest and truest states, its primal tendencies and aspirations, its incipient endeavors, and forming habits.

II. THE ACTUATING PRINCIPLE OF THE REFLECTIVE FACULTIES: INQUIRY.

Its analogy to Curiosity.—When we trace the natural development of the human faculties, in their first stage of *perceptive* action, we observe them working by a law of incitement manifesting itself in the restless principle of *curiosity*,—the desire of knowledge. It is this feeling which prompts the child's appealing question, as he points to a new object that has attracted his attention,—"What is this?" But, as his reflective power developes, and his capacity of knowledge enlarges, his desire of information pierces deeper; and his interrogation takes a shape which indicates a more profound exercise of thought. He now inquires not "*What* is this?"—but "*How*," or "*Why* is this?"

Reason, as the principle of intelligence which gleans and assorts the contributions of knowledge, has helped him to *understand* the exterior character of the object of his attention, and by the due exercise of *judgment*, in analytic observation, to distinguish, and classify, and denominate it accordingly. But a deeper thirst than mere curiosity as to external phenomena and characteristics, now actuates him: a more powerful instinct is at work within him. Reason has reached a maturer stage of development, and, prompted by inquiry, sets out the young explorer in quest not of mere facts, but of *relations* and *causes*. He thus learns to trace the successive links of *connected* phenomena and facts,—to investigate the *connection* itself, and determine its character, to search for interior and hidden springs of *sequence*, to arrive at *principles* and *causes*, to read and interpret *laws*, and, ultimately, to reach the certainty and the completeness of *science*.

The appetite of *curiosity* is satisfied with the knowledge of phenomena and of facts *individually*, or even as *detached* matters of observation: *inquiry* is restless till it arrives at their *connections* and *dependencies*, and the mind is thus put in possession of those relations of knowledge which constitute *principles* and establish *truth*. As an impelling and actuating force, *inquiry*, or inquisition, performs for the intellectual powers, in their comparative maturity, the same genial office which was discharged by the awakening influence of *curiosity* at an earlier stage of mental activity. It is, in fact, but the same instinctive law of the irrepressible desire to *know*, only working in a higher sphere, and for a higher end. *Curiosity*, working on the *perceptive* faculties, induces a tendency to *observation*, and forms the habit of wakeful attention to external *phenomena*, as the elements of KNOWLEDGE: *inquiry*, as the expressed desire to ascertain *relations*, *principles*, and *laws*, awakens the *reflective* faculties, and impels to *investigation*, with a view to the discovery of TRUTH. In the development and formation of mental character, *curiosity*, as the desire of *knowledge*, tends to create an *attentive* and *observing* mind, characterized by *intelligence: inquiry*, as the quest of *truth*, produces a *contemplative*, *thoughtful*, *reflective*, *reasoning* mind, addicted to *exploration* and *research*, and delighting in the attainments of *science*.

But in this higher sphere of intellectual activity, the human being is still acting under the guidance of an implanted *instinct*;—no longer, indeed, a mere unconscious stimulus, but a conscious and recognized impulse of progression toward a definite end and a satisfying consummation. The tendency, however, proves itself equally irresistible in the one form as in the other. For, while the child is sometimes so absorbed in the contemplation of the visible attractions of objects of beauty or of curiosity, as to forego even the calls of appetite for the sustenance of his body, in obedience to the more imperious claims of the wants of his intellectual nature; the adult man may lose himself yet more profoundly, when inquiry compels him to investigation, and plunges him into depths of thought in which he becomes lost to all surrounding objects and relations, and, like Newton, meditates on the fall of an apple, with an intensity and concentration of reflective attention which beguile him of needed sleep, and render him unaware of the presence of food or of the fact of his having omitted its use.

III. THE TENDENCY OF ACTION IN THE REFLECTIVE FACULTIES: INVESTIGATION.

Its manifold directions.—Inquiry, as the grand prompter of the reflective faculties, impels to habits of investigation and research. It not only leads to the scrutiny of the present, in quest of causes and of truth, but ransacks the records of the past, and penetrates into the probabilities of the future. It impels reason to explore the inmost recesses of nature, in pursuit of latent causes. It prompts man to conduct the experiments by which he interrogates nature of her processes, and wins, as the reward of his faithful inquest, the answers which he records in the archives of science. In the relations of moral truth, it compels the investigation of evidence, the verifying of proofs, the sifting of testimony, for the attaining of certainty and the confirmation of belief. But for its influence, the world would be to man a mass of unconnected objects or facts: he would be to himself a mere embodiment of inconsistent elements, unintelligible and destitute of purpose.

Examples of the spirit of Investigation.—Incited by this principle, the *naturalist* explores the remotest regions of earth, to contemplate the productions of nature, to survey the great features of the globe, its various aspects of scenery, its mountains and rivers, its atmospheric phenomena, its mineral, vegetable, and animal products, and the mutual relations of cause and effect which all these bear to each other.

The *scientific voyager* and *traveler*, impelled by the irrepressible desire to prosecute his favorite researches, patiently endures fatigue, and sickness, and exhaustion, through every extreme of heat or cold; he exiles himself from society, for months and years, to pursue his solitary investigations; regardless of danger and difficulty, he bravely encounters every obstacle, and patiently endures every form of pain and privation. He goes forth with the spirit and hardihood of an invader, to extend the domain of science, and returns laden with the trophies of victory, in discoveries which enlighten and enrich the human race.

In the same spirit of investigation, the *astronomer* secludes himself, for successive months and years, to contemplate and record the phenomena of the heavens, and to immure himself in those labyrinths of computation by which the sublime truths of his noble science are investigated and revealed.

Actuated by the same principle, the *historian* pursues his laborious researches in the records of remotest time, in the half-effaced carving on the crumbling monument, or the dim characters on the decaying parchment,—in the obscure tradition or superstitious myth,—whereever a gleam or a spark of truth is to be found regarding the past life of man on earth. From his devotion to such investigations, no fresh charm of nature, or invitation of social delight, can induce him to withdraw, till he has sifted every alledged fact, verified every event, dispersed the clouds of fable, and let in the pure light of *truth* upon the historic page.

The *philologist*, in quest of a particle of meaning or significant value in the component elements of a word, is another impressive example of the spirit of inquiry leading to profoundest research. Whole years, nay, a long life, are joyfully devoted by him to such pursuits. Language after language, by his slow but sure processes of mining and sapping, is forced to give way to his irresistible energy and persevering toil. Nothing can divert his attention, or turn him from his course of persistent indagation. A syllable or a letter, he feels assured, contains a secreted gem of meaning, the investigation of which will put him in possession of wealth untold; and that element he will trace, at whatever cost of persevering investigation, through libraries and through languages, till the lustre of the intellectual diamond beams full upon his mind. His personal acquisition, purchased at such a price, becomes, in due season, through the instrumentality of his devoted labors, the common property of the intellectual world.

The investigations of the *mechanician* into the laws and forces of nature, again exemplify the power which the spirit of inquiry exerts over the human mind, and the value of the results to which it leads. The long and complicated processes of computation by which the devoted servant of science pursues his study of its principles, when occupied with the intricate combinations involved in the invention of some device of mechanism, by which the well-being of mankind may be promoted for ages; the unabating ardor with which, in spite of every discouragement, he continues to consume fortune and life in the prosecution of his purpose;—all indicate the moving force of the mental principle by which his own interior world of invention and contrivance is actuated; and the results ultimately obtained reveal the value of the intellectual habits which are concerned in the processes of investigation.

The *chemist*, interrogating nature, as he investigates the constitution of her elements, is yet another forcible example of the same spirit. At the risk, sometimes, of life itself, he pursues his inquest of hidden relations, perplexing facts, and hitherto undiscovered elements and undeveloped forces, till he is enabled to enlighten the world by the revelation of a new material in the construction of the physical universe, and an invaluable aid to the welfare of man.

Investigation, in all the relations of mental action, is, in brief, the just price of labor, which man is doomed to pay for value received. The noblest of all intellectual acquirements, the grandest discoveries and most useful inventions, are due alike to this process by which the mind is enabled to read, whether in the world of matter or that of spirit, the laws instituted by the Creator; coöperating with which, man becomes possessed of a portion of divine power, and unaided by which, every attempt of human force or skill must be baffled. The tendency and the ability to penetrate into the depths of causation, constitute the mental prerogatives of man; they lift him up to the rank of nobility, in the orders of intelligence, and make his mind the well-spring of a stream which is destined to flow on forever,—not with the mere casual or limited contributions of *observation*, but ever enlarging itself by the broad and deep affluents of profoundest thought and reflective reason, and richly laden with all the treasures of discovery, which have been accumulated by laborious and successful *investigation*.

IV. The Result of the Action of the Reflective Faculties: Truth.

The successive stages of intellectual progress.—Furnished with the interior principle of *intelligence*, invested with the organized apparatus of *sensation*, and provided with the physical *material* for the exercise of his powers, the child, under the guidance of Creative wisdom, sets out on the career of intellectual progress, actuated by the impulse of *curiosity*, whose tendency is to insure the habit of *observation* and that discipline of his perceptive faculties by which he is ultimately enabled to win the prize of KNOWLEDGE. He thus accomplishes his first *curriculum* in the great school established by the benignant universal Providence which careth for humanity, and under whose discipline the law of progressive intellection secures, to a given extent, the welfare of man, whether more or less favored by intelligent human culture. To this first stage of development gradually succeeds that other, in which, through the inward action of the divinely-implanted principle of intelligence, man's own inner, mental world of conscious condition, act, cause, effects, tendency, and power,—of memory, reason, imagination, feeling, and will, is revealed and explored, as a theatre of comparatively unlimited expansion and ceaseless action. Within himself, he finds, at once, the power, the springs, the scope, the materials of this new career of activity, in which he is impelled by the same earnest irrepressible desire to discover and to know, as before, but now working in a higher sphere, and with a higher aim. Prompted by *inquiry*, and impelled to *investigation*, he is thus led onward to that higher goal of intellectual progress, where, by the disciplined action of the *reflective faculties*, *knowledge* is consummated in TRUTH, and where man discovers, and learns to reverence and obey, the highest law of his being,—subordination to the sway of the Reason which reigns supreme in the universe of thought.

Appropriate application of the term Truth.—The sense in which the word "truth" is properly used in general discussions connected with mental processes, is, of course, wider than that in which it is employed in relations strictly or exclusively pertaining to the science of logic. In the latter case, it implies no more than the exact conformity of the terms of a proposition to the fact which it is obviously meant to announce. But, in well-sanctioned forms of expression on general topics, *truth* is, with equal justice, predicated of the correspondence of language to thought, of art to nature, of action to intention, of antitype to type,—in any relation whatever.

In the working of the mind, the term applies, with not less propriety, to the correspondence of perception to object, of conception to idea, of word to thing, of language to relation, of action to conscience, of habit to character, of aim to end, of opinion to sentiment or statement to fact, of expression or representation to reality or actuality. The word "truth," in brief, covers, properly, the whole ground of intellectual, æsthetic, or moral conformity of thought, expression, or action, to an exact and recognized standard, sanctioned by the canons of criticism or of conscience. It stands opposed, therefore, equally to falsity of conception, of expression, or of action. As a quality, it characterizes alike the habits of the correct thinker, of the exact artist, whether in the use of pencil, pen, or tongue, and those of the sincere and honest man. It secures the individual from the unintentional defects of error, and guards him against the voluntary deviations of design.

In relation, however, to the subject of human culture, and, in particular, to the discipline of the mental powers, truth is regarded as a result of voluntary and studious application,—as a product of the exercise of the reflective faculties, in the quest of ultimate principles in science, physical, intellectual, or moral. Examples in point are furnished in the process of tracing the great laws of physics, in the demonstrations of geometry, in the verification of history, in logical ratiocination, in the discussion of moral obligations, in the scrutiny of evidence. In such investigations, the quest of truth, conducted by well-disciplined reflective faculties, is steadily, skillfully, and successfully pushed onward to the grand crowning result of *certainty* and *conviction*. Unaided by the skill which culture and discipline insure, the mind has no security against the involuntary illusions of error, or the intentional misrepresentations of deceit; it discovers no stability in the outward universe, has no confidence in its own conclusions, no just reliance on itself, no firm conviction of duty, no enlightened faith in testimony; but blown about by every plausible assumption of theory, and every shifting phase of circumstance,—a prey to every reigning delusion, unsettled on any sure foundation of moral principle,—skeptical as to every vital truth, plunging into every approaching fog-bank of error, and drifting, without chart or compass, on the great ocean of uncertainty,—suffers, at length, an intellectual and moral wreck.

Most justly, as well as beautifully, has Bacon said, "truth, which only doth judge itself, teacheth that the inquiry of truth, which is the love-making, or wooing, of it,—the knowledge of truth, which is the presence of it,—and the belief of truth, which is the enjoying of it,—is the sovereign good of human nature."

Guided by his own unassisted reflective reason, man does unquestionably attain to great results, both intellectual and moral. But, enlightened by the knowledge which science and education shed on every relation of his being, what a vast expansion, what a wondrous elevation is he capable of attaining;—all resulting from the faithful application and skillful exercise of the reason with which his Creator has crowned his intellectual faculties! How noble, in this view, becomes the office of the educator, whose daily endeavor it is to cherish, and strengthen, and vivify this master principle of all intelligence!

V. Educational Processes for the Development and Discipline of the Reflective Faculties.

Defective Methods.—If we look at what is professedly and formally done, in our common modes of education, for the exercise and discipline of the reflective faculties; and if we found our estimate on the number of branches of knowledge or of science, and the number and variety of books nominally employed for the purpose, we might be inclined to suppose that, in this important part of culture, much is effected. But, on examining the actual state of things, errors and oversights, in this respect, are found to be numerous, and methods comparatively ineffectual.

Exclusive reliance on exactness of recollection.—*Memory*, the appointed servant of the reflective faculties, whose office it is to collect and keep and furnish the materials for their action, is, indeed, amply laden with the semblance and show of matter;—but most of it in the form of Hamlet's book of "words, words, words." The too exclusive use of *manuals*, the mere records of knowledge, instead of the actual study of *objects*, *facts* and *relations*, the observation and the understanding of which constitute knowledge *itself*, leads to the cultivation of a verbal and mechanical memory, instead of a living and intelligent one. The fact is still too generally overlooked, that memory is not so much a separate faculty, which can be trained and disciplined by itself, as the mind,—in virtue of its spiritual nature and exemption from limits of time and space,—retaining or recalling what it has once observed or conceived; that the vigor of this retention, or the force of this recurrence, must always be as that of the original impression, and that the only rational reliance for the healthy and effective action of *memory*, must therefore be the freshness, the force, and the depth of *attention*. But, obviously, no impression made on the mind through the medium of language,—no matter how exact may be the definition, or how true the description,—can ever be so complete or so effectual as that of direct observation through the senses, personal experience, or distinct conciousness. Here, again, we are referred to two great educational principles: that the study of things should precede the study of words, and should always be resorted to, in preference, wherever there is a choice of modes of instruction; and that, to awaken and develope the reflective faculties, the true course is, in obedience to the Creator's appointment, to use the objects of nature as the apparatus which His wisdom has provided, not only for the exercise and training of the mind's perceptive faculties, with a view to the acquisition of *knowledge*, but for the expanding and deepening of its capacities of discovering *truth*. Observation naturally prompts to thought and reflection. There is, in such circumstances, a conscious, living transition from one sphere of intelligence to another,—from one comparatively lower and more limited to one higher and more spacious. But in the mere contemplation or repetition of the words which describe an object, record a fact, or state a principle, the condition of mind is that of abstraction; and the mental associations, in such conditions, are always less vivid, forcible and distinct, than in the observation of concrete realities; and, when the former of these conditions is recalled, its impress is necessarily dim and obscure, compared to that of the latter, which, by the experience of actual perception, has become a comparatively inseparable part of the mental life and history of the agent.

The difference in these two cases will be rendered yet more strikingly apparent, if we suppose,—what is commonly true in verbatim processes of committing to memory,—that the mind of the learner, in his anxiety to retain and repeat with exactness the phraseology of the book which he studies, often glances aside from the contemplation of the *fact* or the principle which he is enunciating, to the literal succession of the *words* in which it is expressed. The mind's power of abstraction becomes, in this way, the very means of its deterioration; and the memory, abused by this arbitrary and mechanical mode of exercise, loses its healthy power of retention and recollection; and unfortunately, most of all, in those reflective processes of earnest thought which demand its most vigorous exertion.

The prevalent methods of teaching, moreover, are still too exclusively directed to the exercise of memory, at the expense of neglecting the other faculties,—an evil inseparable from the false views which still usurp the seats of instruction, and make education consist in processes of passive reception, on the part of the pupil; as if his mind were a capacity to be filled, rather than a capability to be developed, or a life-power to be awakened.

Reading.—The greater number of the subjects which are introduced in early education, as means of exercise and discipline for the mind, are still too commonly treated under the influence of these erroneous views of the character and objects of mental culture. Hence the wearisome experience of the child, when compelled to drudge through the task of committing to memory the *names* of all the alphabetic characters of the language, before, or perhaps without ever, acquiring a knowledge of the *power*, or actual *sound*, of any one of the whole group. Every day, he is giving two or three of these sounds in every one of the short and easy words which he uses in conversation. But he is not allowed the satisfaction of recognizing the fact, that these troublesome and perplexing marks before his eye, are little graphic characters to suggest, phonetically to eye and ear, the very words which he is constantly uttering. When the alphabetic task is accomplished, there follows, usually, in the child's experience, that of hewing his way through whole columns of words, to him unmeaning, because lying out of his sphere in the understanding and use of language; and to this useless toil too often succeeds that of reading multitudes of unintelligible sentences of a character corresponding to the words which baffled him. But we need not dwell on this topic now, having entered into it at length, in former connections of this part of our subject.

Arithmetic.—In arithmetical instruction, which might be so effective an aid to the development of the mind's reflective power, the same evil still too generally prevails, as in the rudimental stages of spelling and reading. The very first step taken, in some instances, is to prescribe and enforce the committing to memory of elementary tables of numbers, by arbitrary repetition of the words in which these are expressed. Were the child allowed the fair opportunity of first *seeing*, in concrete form, the facts which he is made to assume and communicate in parrot-like form; and were he allowed to *create* them for himself, in visible or tangible shape, in copious instances, and thus to generalize the facts from his own observation, memory would have an intelligent, living office to perform, would work with freshness and strength, and long retain, or easily recall, what attention had proved. Were it required of the pupil thus to *construct* the given table, instead of merely repeating the words in which it is expressed, the exercise of memory would be as pleasing as it would be invigorating. It would thus be aided by the deepening and strengthening effect of the not less delightful processes of *combining* and *constructing*, in the actual work of practical operations. The busy hand would thus help the thinking head to clearer views and deeper impressions; and the true and proper work of memory would be done in accordance with the law of mental action.—"AS IS THE EARNESTNESS OF ATTENTION, SO IS THE DURATION OF REMEMBRANCE, OR THE DISTINCTNESS AND READINESS OF RECOLLECTION."

Geography.—The subject of *geography* furnishes very frequently another example of memoriter lessons, exacted, perhaps, with a well-meaning rigorous fidelity to the language of a text-book, but sacrificing the useful knowledge, the pleasing information, and the invaluable mental training and discipline, which this instructive branch of science might be made to furnish. Detached facts, comparative numerical tables, and assumed definitions, are yet too uniformly imposed as a burden on the memory; while the actual survey of even a limited portion of the earth's surface, within daily view, perhaps, of the learner, would furnish him with the best materials on which to build up the noble and majestic structure of geographical science.

Fortunately, through the labors of Professor Arnold Guyot, in his luminous exposition of the philosophy of instruction in this department of science, a new and better era is begun in American schools; and this branch of education is now, in many seminaries, taught on methods strictly logical. The study of geography thus becomes an admirable intellectual discipline, in addition to the systematic forms in which it embodies the great facts and pervading laws of nature, which are its peculiar province as a science. The student, who is trained on this admirable method, has the great features of the globe, and all their relations of consequent fact, imprinted forever on his memory. The very inequalities of the earth's surface, become to him an intelligible language, by which he reads the laws of design, and traces effects to causes, with the certainty of distinct recognition. Taught in this manner, few sciences are more adapted to the development of the reflective faculties, in their first steps of advancement from the field of perceptive observation to that of contemplative survey and rational inquiry, or to that of profound scientific investigation. The methods which Professor Guyot has transferred from the lessons of his own distinguished instructor, Carl Ritter, and the views of the patriarch of geographical science, Baron Alexander Von Humboldt, will, it is to be hoped, soon find their way not only into our text-books, in which they are beginning to appear, but into all our seminaries in which the young mind is undergoing the formative processes of education.

History.—Of all the sciences which are naturally fitted to invite the mind to the full exercise of its reflective tendencies, none would seem so happily adapted to this end as *history*. Its records, while they are, in one sense, but forms of memory, are still the records of man moving on his amplest stage of action, as a human being, intelligent, rational, and moral; blending the relations of individual character and social life with those of the national and political sphere,—with the founding the government, or the fall of states and empires.

History, as it necessarily exhibits man in his moral relations, ought to be one of the most instructive and suggestive of studies. If any subject can excite reflective thought, it is this. Its analysis and scrutiny of human character; its investigation into the motives of action, in every form and condition of life; the research, to which it invites, into the manners and customs of by-gone ages; the careful examination which it induces of the testimony of conflicting records; the views which it discloses of national character and institutions; the insight which it gives into the policy of nations, and the influence of different forms of government; all bespeak the tendency of historical studies to evoke the most earnest and profound reflection. The study of history should be, in itself, an effective discipline of the mind, in all the noblest relations of its action. But, here, too, the mere imprinting on the memory a naked record of detached facts, of single events, or striking incidents, or of the items of a chronological table, is the too prevalent law of custom in the requisitions of educational establishments. The life of history, its suggestive power, as a reflective and moral instructor, is thus killed; and, instead of the living form, in its natural lineaments and beauty, we have but a meagre outline of the dry bones of what, in the technical language of historic compilation, is most aptly denominated a "skeleton."

To the mature mind, willing to encounter fatiguing effort, and patiently to add stone to stone of the intellectual fabric, the plan too commonly adopted in the instruction of young learners, of beginning the study of history with a mere outline of dates and events and eras, may prove practicable, though not easy or pleasant. But, to the youthful spirit, the great attraction of this study lies in its pictures of life and action, and in the sympathies which these evoke. To the juvenile reader all history is biography. The policy of nations, the intrigues of state, the strategics of war, are unintelligible and uninteresting to him; and he ignores them, if they intrude upon the narrative. But the feeling and the character and actions of individuals, he understands, and admires or hates, according to the promptings of his unperverted heart. He follows the steps of the historic hero, through all his scenes of struggle and trial, of effort and of triumph; imbibing unconsciously, in the successive stages of this ideal progress, inspiring lessons of wisdom and virtue from all, or listening to the warnings which recorded experience gives on the evils of folly or of vice.

A course of judiciously selected *biography*, should be the educational introduction to the study of history. The interest attached to the personal narrative, accompanies the young student into his reading on the broader scale of national movements and their various consequences; and the life breathed into the study from the character of its earliest stage, gives warmth and attraction to all its more extensive views and complicated relations.

Language, as the product of the expressive faculties, and as a discipline for their development, we had occasion to discuss under that head, in a former lecture. But we have still to do with it as a part of education adapted to the strengthening of the mind's power of reflective investigation. Our common error in this department, as in others, is a too exclusive attention to the acquisition of a certain amount of knowledge of the etymological and syntactical forms of words and phrases,—a knowledge depending entirely on the exercise of memory in retaining or recalling these forms. Through the various stages of education, the attention is too exclusively fixed on these minutiæ of language; and, neither in the study of ancient or of modern languages, nor even in that of our own, is the mind duly attracted to the character of the sentiments embodied in the works of the authors which are read in the progress of education, nor to the broad distinctive traits which form the character of the given language,—to the individuality which a successful writer stamps on it, or to the mental value of the forms of expression which he adopts. *Philology*, a pursuit so peculiarly adapted to the cultivation of the mind's reflective and investigating powers, is cut off from the student till the strong bias of personal taste or inclination induces him to open this mental vista for himself. *Criticism*, too, the art which demands the closest application of reflective judgment, in addition to perfect purity of taste, is handed over to the lessons of some meagre text-book, which does not contain matter enough within its boards for the proper discussion or fitting elucidation of a single principle of æsthetics.

Logic is another science belonging to the more advanced stages of education,—the study of which ought to exert a powerful influence on the tendencies and habits of the reflective faculties, but which is sometimes very inadequately taught even in our higher seminaries of learning. In some of these institutions, it is customary to restrict the study of logic to the ancient Aristotelian form of it, and without the advantage of the scholastic, syllogistic disputations, which, although always formal in character, and sometimes frivolous in result, were yet designed to be rigorously exact exemplifications of pure logical reasoning; and which, with all their faults and failures, secured, at least, one great practical object of education, by giving the mind active exercise in applying principles, instead of leaving it merely to listen, and remember, and record. It is true that, in some educational establishments, a more liberal view of logic is entertained, and that, in these seminaries, the science is regarded not merely as one which teaches the art of reasoning, but as that which investigates and enunciates the laws of thought, and involves, therefore, a knowledge of the elements of intellectual philosophy, together with the application of all the principles of mental science which affect the exercise of any class of the various powers and faculties of the mind.

An instructive exposition of this view of logic, as the first stage of purely intellectual discipline, is given in the "Outlines of Philosophic Education," by the late Professor Jardine, of Glasgow University, who, for fifty years, conducted, with distinguished success, his course of instruction, on the plan delineated in his work. That eminently skillful teacher,—for he regarded the duties of a professor in his department as consisting quite as much in conducting the practical processes of training exercises, as in the didactic routine of lecturing,—regarded the study of the Aristotelian logic but as a very limited part of intellectual discipline, and, while he allowed it its distinct place and full value, justly maintained that, for the purposes of modern education, which imply so wide and varied applications of thought,—in directions so different from those pursued in ancient times,—the sphere of study must be greatly enlarged beyond the narrow limits of the scholastic discipline, and a course of training prescribed which shall prepare the mind for the new demands made upon its powers, in the new modes of action with which modern science is conversant.

This broader view of logical discipline is fortunately taken by several of our own recent writers on the subject; and the course of instruction is, accordingly, in some seminaries, enlarged so as to embrace the elements of intellectual philosophy, as indispensable to clear and satisfactory views of logic itself, and to the purposes for which the study of logic was originally constituted a department of education. But even in such instances, the young student is not trained to apply the principles embodied in his text-book to an extensive course of practical exemplifications and personal discipline. He is not called to perform any series of practical exercises bearing the same relation to the science of logic that analytic parsing and written composition bear to grammar. He is not trained to trace the logic of great arguments exemplified in the productions of eminent metaphysical writers. He is not disciplined in the digesting and methodizing of his own conceptions on prescribed subjects, so as to give sequence or soundness to argument, and certainty to his own conclusions.

In the study of *intellectual philosophy* we see, too often, another instance of the imperfect learning by book, without the contemplation of the thing itself of which the book treats. Our current instruction, in this department, consists in little more than the assigning of so many pages of a text-book to be committed to memory; and the progress made in the study of the science is judged of by the correctness or the fluency with which the terms employed in the nomenclature of a favorite system can be repeated, rather than by any actual knowledge or personal opinions on the subject itself. The student is not invited to put forth his own mind, in actual investigations on the topics which he studies: he is not permitted to enjoy the benefit of those conversational discussions with his instructor, which might create a living interest in the subject prescribed, and induce the student to prosecute with effect those unaided researches of individual application, without which knowledge is not to be acquired, or truth ascertained.

In the department of *moral philosophy*, a subject so peculiarly adapted to the development and discipline of the reflective faculties, we find, usually, the same mechanical routine of book-study and recitation adopted. In this highest relation of human instruction, the mind is still left passive and receptive merely; while there is no subject on which original, vigorous, and personal thought is so important to the acquisition of principle or the formation of character. Here, more than anywhere else, living, eloquent instruction from the man, rather than the book, is indispensable to the production of deep and enduring impressions of truth, and the exciting of hearty sympathy with its applications. Here, too, more than elsewhere, is the active use of the student's own mind necessary to the results of true culture on personal habit and character. His own investigations, and his own record of these, ought to be required of him, as the only rational benefit of the guidance afforded by a text-book or a teacher. Conversation and writing would throw life into these subjects, and make them matters of personal interest and personal conviction to the individual; and the fruits of education would thus be more extensively reaped in the experience of society.

APPROPRIATE METHODS OF DISCIPLINE.—We will now turn from the consideration of the subjects which form the usual material for the education and development of the reflective faculties, to the more immediate contemplation of those faculties themselves, with regard to their natural wants and appropriate aids; and, first, as regards the faculty of

Memory.—In the fact of *muscular* action, the power to retain depends on the firmness of the original *grasp.* The analogy holds in the exercise of memory: the retentive or repeating power depends on the depth of the impression: concentrated and sustained attention is the condition of remembrance. If we would strengthen the memory, we must cultivate force of attention. The indication of nature to the teacher, in this case, obviously is, Select for the mind's first exercises, striking or attractive objects of attention, or interesting subjects of thought. For more advanced stages of mental progress, when accuracy demands comparative minuteness and multiplicity of uninteresting detail, rely on the moral force of the will and disciplined habit, to give closeness and persistency to attention. In all cases, keep fully in mind the great value of mere *repetition* and frequent *review,* without which all ordinary subjects of past thought are ever tending to sink into dimness and obscurity, and, ultimately, into utter forgetfulness.

Mechanical aids to memory may sometimes appear very plausible; and they often are very amusing temporary expedients. But they actually destroy memory, by setting it aside, and usurping its place. The physiologist tells us that if we omit the due use of the teeth, we forfeit the possession of them. The fact is strictly so of memory. The juggling tricks of perverted ingenuity may seem to conjure up a substitute for the sound and healthy exercise of this faculty. But the subject of the experiment, in this as in all other forms of charlatanry, finds himself, in the end, the victim of deception.

Memory, when employed on subjects comparatively complex, or intricate in their relations, finds its surest reliance,—next to close and fixed attention,—to consist in the grand universal law of *order. Arrangement, classification, system, method,* are powerful auxiliaries to memory, as they all tend, more or less, to give sequence to thought, by the law of causation, in the closest connection of antecedent and consequent. One stage of thought thus suggests another; and the machinery of memory, so to speak, works smoothly and well. The security for remembrance or for recollection, in such circumstances, lies, of course, in the clearness with which connections and relations are perceived, and the fidelity with which they are observed. A treacherous memory is often but the report of unfaithful observation or dim conception.

Habits of Conception dependent on those of Perception.—*Conception,* as a primary power of reflective intelligence, performing for the relations of pure intellection, the same office with that of *perception*, in the exercise of the understanding on the objects of *sensation*, depends, to a great extent, on the character and habits of the *perceptive* faculty. The *relations* which the *conceptive* power discerns between the objects and facts, presented to it by the ministrations of sense, constitute the condition of *intelligent observation*, as differing from mere *ocular aspection*. But these relations necessarily derive much of their reality and force from the vividness of the sensation and the clearness of the understanding, which have attracted *attention* to the external phenomena, and thus have elicited the conceptive acts of mind by which the relations perceived and understood become the ground-work of *reflection* and *meditation*, leading in turn to farther processes of thought, inductive or deductive, as investigation may require.

Clear, forcible and true *perceptions*, therefore, are requisite antecedents of corresponding qualities in *conception ;* and a sound and active condition of the latter depends on similar conditions and habits of the former ;—just as healthy *sensation* is, in turn, the pre-requisite of distinct *perception*. We are thus again referred, in adopting educational measures for strengthening and developing the mind's conceptive power, to the attentive observation of external nature, as the proper commencement of early mental training; as the only security, also, for the vigor of all those faculties which aid the mind in digesting and assimilating to itself, by purely internal operations, the materials of knowledge acquired through the action of sense, for the purpose of being incorporated into the mental fabric. We are, at the same time, reminded of the great fact, of which education should never lose sight, that, whatever be the number of faculties into which the intellectual philosopher may, in his scientific analysis, subdivide the action of the mind, or whatever may be the personified individuality which the figurative language of popular usage may arbitrarily confer on any one mode of mental action,—to distinguish it from others,—the principle of intelligence is strictly a *unit ;* that it is the *same* agent, whether contemplating the external world through the windows of sense, or looking inward upon itself, and interpreting its own action. In both circumstances, we recognize a voluntary act of attention, followed by an apprehensive or a comprehensive act of understanding. In either case, *intelligence* is the power at work; *knowledge* is the *immediate*, and *truth* the *final* result.

Conception as dependent on Memory and Imagination.—Under the term " conception," however, in the vague usage to which the English language is unfortunately prone, in all subjects purely intellectual, we usually include states or acts of *memory* and of *imagination*. Nor is it to be denied that the conceptive faculty is often called into action on data furnished by *memory*, as well as on those presented by *sense* or by *reason*. To vivify and invigorate the power of conception, therefore, in such relations, we are admonished to pursue the same course of exercise and discipline by which that faculty is rendered prompt and retentive. Whatever we succeed in doing to improve the *memory*, becomes thus a gain to the power of *conception*.

Again, the prevalent use of language refers many of our conceptive acts to forms of *imagination*. The astronomer, speaking of the sun, tells us of its dark, central body,—of its first layer or substratum of cloudy atmosphere,—of its photosphere, or luminous atmosphere, and of yet a third rarer element, ethereal and slightly colored,—as to the character of which, science is somewhat perplexed with uncertainty. The conceptive power of the mind enables us, in this case, to follow the entrancing description as the scientific observer, aided by the many appliances which modern instruments provide, proceeds with his verified observations; and, with wondering attention, we draw on the tablet of imagination the successive images which his graphic but exact expressions suggest: we see, with the mind's eye, the sun-world, and its enfolding atmospheres, as distinctly in our consciousness as if we surveyed them with eye or "optic tube."

Correctness of Conception.—Even in such cases, however, the truthfulness and the distinctness of the mental picture depend, to a great extent, on the exactness of its correspondence to fact, as regards not only the forms but the character of objects, and the relations existing between them. Here, again, we are referred to the working of the intelligent principle in the modes which we denominate *understanding* and *judgment*, without which the whole structure erected in the mind would be as the poet's "baseless fabric of a vision."

In educational training, therefore, while every endeavor should be used to vivify and incite *imagination*, and to awaken it to its utmost activity by appropriate exercise, with a view to the vast power which that faculty confers on conception, as a creative energy of mind; and while all the aids which nature, art, and poetry, offer to this end, should be fully employed; there remains yet a task for education to perform, in inuring the conceptive faculty to the discipline of *reason* and *judgment*, so as to render it exact, and truthful, and symmetrical, in all its work.

The means by which the mind is to be formed to such habits in its conceptive action, are evidently the same which we would employ for developing and strengthening the reasoning powers: first, *the interesting presentation* of the objects and facts of the *natural* world,—so as to elicit thought and reflection on their character and relations; secondly, the *teacher's* skillful *suggestion*, designed to aid the observer in tracing those relations to principles and laws of logical science; and, thirdly, the careful training of the mind to *the contemplation of its own action*, to the critical inspection and exact *discrimination of the results* of its action, and to the thorough *investigation of the laws of thought*, applied to the quest of truth.

CONSCIOUSNESS:—*as an aid to Reflective Reason.*—Of the reflective conditions of mind which tend to give accuracy to knowledge, or certainty to truth, none is more conducive to such results than that of *consciousness.* Not that it necessarily constitutes a separate power or faculty; (since it is plainly but an act of introverted attention, by which the mind becomes aware of its existing states, acts, or processes;) but rather that it is a mental condition distinctly recognized in all the languages of civilized man, and implies the power which the intelligent principle possesses of holding up, in distinct vision to itself, its own acts and operations;—whether these refer to the external world of perception or the interior world of thought. This power of self-observation, when the attention is directed to relations purely intellectual, is necessarily the condition and the measure of force with which the mind pursues its trains of reflection, traces the invisible relations of sequence, or follows the continuous processes of meditation, in the prosecution of those profound researches which the depth and intricacy of scientific or moral truth not unfrequently require.

Its Susceptibility of Culture.—In the relations of moral culture, this faculty,—so to term it,—works in so close and intimate union with the great master principle of *conscience*, that its importance as a fact of mind demanding the earnest attention of the educator, in his capacity of moral guardian, is, at once, apparent. On that department of our subject we do not, at present, dwell, as it will invite our attention hereafter, in its proper place. But, as an intellectual condition, subject, to some extent, to the action of the will, and to the influence of disciplinary exercise, it is obvious that conciousness or self-observation, may, like any other power which the mind possesses, be rendered vivid, prompt, and operative, by repeated action.

Man commences his intellectual and moral life an *unconscious* agent, in the unknown and wonderful world around him, in childhood. He is as utterly unconscious of the influences exerted on himself as he is ignorant of the true character and relations of the objects by which he is surrounded. Absorbed in the contemplation of the broad field of the external world, or in the observation of its objects individually, he is lost alike to the consciousness of his own being, and to that of the effects which are wrought within him by these very objects. Drawn onward by an unconscious power of attraction, he follows the study of nature, in obedience to an instinct of which he is not yet aware, but which, by leading him out of himself, conducts him to the school of *observation*, where knowledge commences, and from which he, in due season, returns, empowered by the instruction he has received to *observe* and *understand himself.*

As his nobler powers mature, they begin to work on the data which observation has furnished; and, as he examines, he thinks, he compares, he reflects, he reasons; he becomes aware of a more powerful influence and a deeper satisfaction than that of mere observation, while he consciously follows his successive conceptions, and meditates not only on the relations of object to object, and of effect to cause, in the outward universe, but on the yet more wonderful and mysterious action of his own inward being, to the conciousness of which he is now fully awakened. This newly-discovered world attracts his attention with a yet greater force and intensity of interest than that of the external sphere, in which he has hitherto moved; and the growing strength of his intellect, he finds, is more fully exerted and more decidedly proved in this inner region of its action, than in the outer field of sense and perception. He delights, accordingly, in this conscious exercise of a higher power, and recognizes the nobility of reason.

Such is man's progress, even when little assisted by the formal aids of education. But we see thus more clearly how judicious and skillful training may render conciousness comparatively *vivid*, *definite*, and *distinct*, by aiding, with appropriate appliances of exercise and discipline, this capability of reflective contemplation, of self-intelligence, and of self-development, which grows with the growth, and strengthens with the strength of the maturing mind. If this power is permitted to lie neglected and undeveloped, the result is uniformly a characteristic dullness, obscurity, and vagueness in the mind's habitual action. This fact we recognize, in full exemplification, when we contrast the uncultivated, half-conscious child, youth, or man, with the well-educated and the self-intelligent.

Mode of Culture.—Subjected to processes of cultivation, however, this faculty, like memory, can not be brought under the law of direct action. *Memory* is to be reached through *attention;* to enliven and strengthen the former, we must work upon the latter. We have no more power over it, separately, than we have over the reflection of an object in a mirror. Memory is the reflection of attention. We can not render the image distinct, unless the object is so. The same is true of *consciousness.* It has no separate or independent existence

It is, so to speak, the mind's reflection of itself; it is but an act of attention directed inward. The vividness, the definiteness, and the distinctness of consciousness, are,—as the corresponding properties in the act of attention,—blended with the consentaneous force of will coöperating in the act. In this latter circumstance, its action differs from that of memory, which is often, even in its most vivid delineations, wholly involuntary. But the depth and fullness of consciousness are always dependent, more or less, on the force of the will which directs the act of attention inward. It is thus rendered more perceptibly a subject of culture by educational training.

Morbid Unconsciousness.—To some minds the intellectual and moral value of habits of wakeful consciousness, is very great from, perhaps, some defect of organization or fault of habit, inclining the individual to a half dreamy condition of *reverie*, in which the mind loses power over its own action, and becomes lost amid the scenes of memory or of imagination. To the artist and the poet, an intensity of abstracted attention is, in some relations, the condition of imaginative power of conception and of living expression. But, in such cases, the mind is healthy, vigorous, and voluntary, in its action: it is obeying one of its own highest laws, which demands this almost superhuman power of abstracted and concentrated attention, for the contemplation and embodiment of ideal images of perfection. The abstractedness and "absence of mind," on the other hand, which become habitual from neglect, are nothing else than a *morbid unconsciousness* indulged,—a result of organic or mental *weakness*, and a habit utterly destructive of voluntary power of attention or depth of thought. In some mournful instances, it is the sure precursor of insanity.

In all circumstances, the tendency of such habits is to cherish a morbid preponderance of imagination over reason and judgment, and to create a dreamy twilight of thought, in preference to the clear light of intellectual day. Listlessness of attention, and dullness of understanding, and every other evil of mental torpor, are thus entailed on the intellectual character.

Cultivation of the Reasoning Faculty.—The principle of reflective intelligence assumes, in the language of recognized usage, the various forms of action implied in the terms *understanding*, *judgment*, *reason*; and this triple denomination suggests also the progressive measures adopted in education, for the cultivation of this master power of intellect.

Understanding, as the primary act and condition of intelligence, is involved in every instance of *perception*, even in the cognizance of the mere form and character of outward objects; in the contemplation of facts, its aid is indispensable to the *apprehension* of their connections and relations; and, in the tracing of these, its assistance is requisite to enable the mind to arrive at the *comprehension* of principles and causes. When the mind is unable to put forth this prehensile, (*seizing, grasping, holding,*) power, we say, in current phrase, the connection, the principle, the cause, or the relation, is "not understood." Reverting to the etymological signification of the term, by which this faculty is designated, we observed that the action of the "understanding" was represented as a necessary *ground*, or *foundation*, without which, of course, there could be no superstructure of thought or knowledge. In the terms now introduced, which denote the two chief forms of action in the process of understanding, the figurative suggestion is not less forcible or appropriate, than in the former instance. The uninformed understanding, is, in the latter case, represented as the *powerless hand*, which is not put forth, which does not lay hold on its object, or which lets it slip.

Natural Development of the Understanding.—The appropriate training of this fundamental faculty of the mind is distinctly indicated to the educator in the first natural workings of intellect in childhood. The inciting principle of curiosity impels the child to observe and to learn. But he is not satisfied with the mere knowledge of the external character of objects; he is eagerly desirous to understand their internal construction, and hence he tears open, and pulls to pieces, even the flower which delights him; and the indulgent father knows that it needs a sharp eye to keep the little investigator from practicing a similar experiment on a gold watch.

Educational Development.—That spirit of inquisition which is implanted in the mind, to secure its progressive development, renders the examination and inspection of objects, for the discovery of their internal structure and character, an exercise still more attractive and inviting to a child than that of the perception even of beauty in form or color; and the investigation of the connection and relations of phenomena and of facts, yields him a deeper gratification than the delight arising from the recognition of any merely exterior trait of character in outward objects. Here, then, is the proper place where to commence the training of the understanding to the exercise of true apprehension and full comprehension, in the acqusition of a thorough knowledge of the objects by which the child is naturally surrounded, and of their relations to one another, in mutual adaptation, or in cause and effect. Perception is thus transmuted into knowledge; without which transition there is no intellectual progress. The understanding of relations is the mediating process by which object is linked to object, fact to fact, and relation to relation ; till knowledge, in its turn, becomes the completed chain of principle and truth, in the relations of system and science.

Practical Exercises.—One of the most hopeful indications of the general progress of opinion on the subject of education, is afforded in the comparatively recent introduction into primary schools of lessons on *objects*,—not merely the productions of nature in animal and vegetable and mineral form, but the common objects of observation in the child's daily notice at home and in school, in the street, and in the workshop. The young mind is thus strengthened, while it is gratified, by the exercise of tracing design and adaptation in the various contrivances of mechanical ingenuity. The conscious understanding of relations and processes, becomes to the mind what the expanding and enlivening influence of light is to the plant; while the self-intelligent agent enjoys the double pleasure of growth and the consciousness of it. Understanding, as the mind's prehensile and digestive power, appropriates to itself the material of its own life and strength, and quickens and expands with every acquisition, till it reaches the culminating point of the full maturity and vigor of a well-developed capacity.

Observation of the processes of Nature.—Next to the study of the elementary principles and application of mechanics, as a means of enlightening and invigorating the understanding by disciplinary exercises in tracing combination and operations to their causes, should come appropriate exercises in watching and tracing *the great processes of nature, daily* passing before the learner's observation, and inviting him to the study of those larger displays of power and intelligence, which are exhibited in the mechanism of the worlds moving in space, and obeying the laws of time.

The *chemistry* of nature, too, should be made to furnish ample employment for the exercise of the understanding, in tracing the curious relations which that vast department of knowledge discloses. No science has more power than chemistry to stimulate curiosity, and provoke inquiry, and thus invite the mind to penetrate the mysteries of nature, and evolve the hidden causes and secret influences at work in phenomena, which the mind can not contemplate without the feeling of wonder, and which, at first, seem to baffle the power of intelligence; but through which the prying eye of the understanding learns, ere long, to penetrate, in the inquest of relations by which mystery is solved and difficulty explained. A simple elementary course of experiments, in this department of science, by the light which it sheds on common phenomena, exerts a great power over the young mind;—suggesting inquiries and leading to investigations which call the understanding into wakeful and vigorous action on all facts accessible to observation. The teacher, who is true to his office, as guardian of the young mind, and who takes pleasure in aiding the formation of habits of intelligence and inquiry, will spare neither time, nor trouble, nor expense, in his endeavors to secure to his pupils the benefit of such aids to their intellectual culture.

Combined Exercises of Understanding and Judgment: Arithmetic. In the department of mathematical science, there is no lack of attention to the study of *arithmetic*, as an important branch of exercise and discipline for the reflective faculties, in the relations of the understanding operating on numbers. In this branch of culture, the purely mental processes first introduced by Pestalozzi, and transferred to American schools by the late Warren Colburn, have let in a flood of light not only on the subject of arithmetic, as an instrument of intellectual discipline, but on the whole field of education, and on all the details of methods of instruction, as regards the principles of rational and genial development applied to the human mind. Whatever may be the case elsewhere, there are few schools, in New England at least, in which arithmetic is not philosophically and successfully taught; and the vast improvement, or rather the entire renovation of the character of our primary schools, since the introduction of Colburn's method, may well suggest to the thoughtful teacher the immense amount of benefit which would certainly follow corresponding changes in other departments of education.

Geometry.—Another branch of mathematics admirably adapted to the cultivation of the mind's reflective and reasoning powers, when applied to external relations, and one which forms, by its very nature, the vestibule to all the other apartments of the great temple of knowledge, has not commonly met with that attention or that place which its importance requires. Geometry is too commonly deferred till a late stage, comparatively, in the progress of education; and it is, for the most part, taught abstractly, commencing with its *linear* forms. But the few teachers who have ventured to break away from the trammels of routine and prescription, and who have taken their suggestion from the obvious fact that, even in early childhood, the mind is delighted with the observation of definite forms in all their simple varieties, and that, at this stage of progress, form exists only in the visible and tangible concrete, and not in the abstract,—the few teachers who have here followed nature's course, and allowed the young learner to commence an easy elementary and practical study of geometry in its relation to *solid* objects, have found no difficulty arising from permitting children to commence their attention to this branch of knowledge at a very early age, and to unspeakable advantage, as regards the exactness of mental habit which this mode of discipline so peculiarly tends to form.

From the observation and study of the *solid*, the transition is rational, natural and easy to the consideration and examination of its *surface;* and here another wide field of thought is opened to the mind of the juvenile learner,—yet one which is perfectly practicable to his faculties, and which he can always submit to actual survey and ocular measurement. With the solid body in his hand, the little student finds it an easy and a pleasing step to proceed from the contemplation of the *surface*, to that of its "*edges*," as he calls the boundary *lines* of the surface; and here still another delightful scope of observation opens to his mind, as he proceeds to compare line with line, and, applying the definite and exact relations of number, learns to *measure*, and thus to give certainty and precision to his observations, and accuracy to his conceptions.

General Effects of Mathematical Discipline.—In the more advanced stages of education, the modes of instruction in the department of mathematics, are, from the nature of the subject, of a character so definite and comparatively immutable as to suggest methods and forms of exercise uniform and sure. Hence, the admirable results secured by the discipline to which the reasoning powers are subjected in the prosecution of these studies. The value of mathematical training consists, chiefly, in the exactness of attention and discrimination, and in the orderly procedure of thought required in the processes which it prescribes, and, consequently, in the correctness of conception and accuracy of judgment thus attained in the habits of the mind. Another invaluable advantage of mathematical studies, connected more immediately, however, with their advanced stages of mental application, consists in the extent and scope of their operations, combined with the perfect sequence of every step in their procedure, and the confidence which they serve to create in the mind's own action, by the certainty of its conclusions.

The main duty of the teacher, in this department of education, lies, from the very character of the subject, in watching carefully the mind's first steps in the earliest stages of exercise; so as to see to it that the perfect rigor of intellectual discipline is attained, which mathematical science is designed to produce, that there be no yielding to juvenile impatience, tending to laxity of attention, careless assumption, heedless oversight, and unconscious inaccuracy of mental habit. In more advanced stages of progress, the successive branches of the subject afford, by their own intrinsic character, a comparative security for correctness in the processes of evolution, and especially in the case of all students whose first steps have been carefully watched.

Common Mistake.—There is an opinion somewhat prevalent, even among those who have the control of education, that the certainty of mathematical reasoning; depending on the peculiar character of the grounds on which it rests, has but little effect on the formation of accurate habits of judgment in relations which have no firmer foundation than matters of opinion, or of taste, or of metaphysical inquiry. But, in this view of the question, the inevitable influence of the law of *analogy* on the constitution and habits of the mind is overlooked. The educational effect of any study lies not so much in the specific character of the subject, or the particular exercises of intellect which any one of its processes requires, as in the analogous tendencies and habits which the given exercise contributes to form. The perfect precision of observation, the scrupulous correctness of judgment, and the strict sequence of thought, which mathematical operations demand, are invaluable aids to every process of mind in which the reasoning faculties are employed. A disproportioned excess of attention to mathematics in the assignments of education, may, certainly, be chargeable on the plan of intellectual culture adopted in many seminaries of learning, and, particularly, of such as are devoted to the mental training of the female sex. But this mistake, like that of attempting the exposition of moral truth by mathematical forms of reasoning, does not prove any want of adaptation in mathematics to the design and purpose of intellectual discipline on kindred subjects, or in the results of such discipline in the formation of mental habits and character.

Logical and Critical Discipline.—Of the great importance of a thorough practical logic, for the discipline of the reasoning faculties,—a course comprising processes of strict personal training in the art of thinking,—we have had occasion to speak, under other heads of our present investigation, and on this topic we need not now enlarge.

Another department of higher mental culture, the art of *criticism*, was briefly adverted to, on a former occasion. As one of the highest forms in which reason can be applied, and as the ground-work of all true discipline of imagination and taste, it claims a large share of attention in educational training. But, to render this department of study truly beneficial, it needs a thorough revision and enlargement of its plan. As generally adopted in our seminaries of learning, it is made to consist too much of processes of training by which the mental eye is sharpened for the perception of *error* and the detection of *defect*. This is but the negative part of critical discipline, and is chiefly directed to the faults of others, rather than those of the observer himself; while, as a forming and moulding process, its chief benefit would lie in its efficacy in training the mind to the perception and recognition of *positive beauty* and *perfection*, and in forming the tastes and habits of the individual by a strict but genial *preventive* discipline, which should preclude the tendency to deviation from the principles of beauty and truth. To secure the results of such discipline, a liberal course of early training, directed to the intelligent recognition of beauty in nature and in art,—as was suggested in a former lecture,—becomes an indispensable foundation. The reasoning, on the data thus furnished, would necessarily become positive and practical. The mind would proceed under the sure guidance of ascertained principle; and the canons, so called, of criticism, would have an authority more sure than merely the speculative opinions of an individual, or of a class of theorizers. But, so far are we, as yet, from a truly liberal standard of education, that in all our higher seminaries, scarcely can we find a place assigned to any course of *æsthetic* study or training. Yet no species of discipline could be prescribed so admirably adapted to the generous development of the powers of judgment and reason, as that critical exercise by which the mind, in the analysis and combination of the elements of beauty, learns to interpret to its own consciousness the laws of grace and of harmony.

Philosophical Training.—The principles of *intellectual* and *moral philosophy*, we have already adverted to, as peculiarly adapted to the discipline of the *reflective* faculties. The great facts which the mind recognizes in contemplating the principles of the former of these branches of science, and the vital truths which it evolves in tracing the relations of the latter to the former, call for the exercise of reason and judgment on materials purely mental, and, by their very nature, fitted to train the mind to habits of close investigation and nice discrimination. On these habits is the mind's whole reliance to be placed in tracing the subtle distinctions on which the eviction of the profoundest truths not unfrequently depends.

On such subjects, as also in relation to logic and criticism, it was suggested, in a former connection of our subject, that education should be rendered more personal and practical in its methods; that it should comprise, in its measures for discipline, the mental efforts of the student himself in thought, conversation and discussion, rather than the mere endeavor to retain in memory the definitions and statements of a text-book.

Civic Training.—The study of civil polity, as it comprehends subjects collateral to history and to ethics, forms a theme well-suited to the exercise of the mind's reflective powers, by the trains of thought to which it naturally leads. As a branch of education, it should be extended to an attentive survey of all the political relations of human society, as embodied in forms of government, in national constitutions, in international law, in civil institutions. Independently of the value of such investigations to the intelligent discharge of the duties of life, in all countries favored with constitutional immunities, the class of subjects now mentioned is of the utmost moment in the higher relations of education, as affording large scope and full exercise for the reasoning powers, in the investigations and discussions to which such subjects naturally invite the mind of the student. The discipline, however, resulting from this branch of studies, depends, obviously, on the extent to which it is made a matter of personal thought, of written dissertations, and of oral discussion, on the part of the student. In this, as in other departments of ethical science, our colleges would do well to arrange their exercises on the model of the debating society, or of the moot-courts of professional schools; so as to elicit voluntary mental action and effective coöperation on the part of students in their own education. The random exercises of debating clubs, as they are commonly conducted, in which little or no systematic preparation is made for discussion, do not serve such a purpose. For educational influences, careful premeditation and critical supervision are equally necessary to render discussion an appropriate discipline.

Natural Theology forms another branch of study peculiarly fitted to call forth and improve the reflective and reasoning powers of the mind. Every new advance of science gives additional attractions to this ennobling theme of contemplation. The profound thought to which it leads, the large analogies which it reveals, the great truths which it urges home to the mind, the sublime heights to which it conducts aspiring reason,—all indicate the high value of this branch of philosophic investigation, as an effective means of enlarging and invigorating the noblest faculties with which man is invested.

The subject of natural theology is, by no means, neglected in our customary routine of studies, either in schools or colleges. It is carefully designated on the programme of instruction, and regularly assigned to a definite term of the course. But restricted, as the attention given to these subjects generally is, to recitation from a formal text-book, little of the peculiar effect of personal investigation into them is felt on the mind at the time, or marked on the subsequent mental character of the student. Personal examination, and actual analysis and manipulation, are as much needed in the illustrations which serve to throw light on the subject of natural theology as they are in the study of any other branch of science. The actual, ocular inspection of objects, is felt to be the only means of effective instruction in all other subjects which require the verification of principle by reference to fact. Without the aid of such practical measures, the best of text-books becomes dry or tedious, and, at all events, fails of exciting the earnest attention and personal interest which secure the energetic action of the whole mind, give life and vigor to its habits of action, and insure the further prosecution of inquiry in after stages of life.

To secure an earnest voluntary application to this noble study is not difficult, if the instructor take pains to invite his students to personal investigation of the numberless evidences of Divine power, wisdom, and goodness, which are furnished in every department of nature. The pleasure of observing, recording, and reporting these, is one to which the teacher who will faithfully make the experiment will find few minds so torpid as to be insensible.

Evidences of Christianity.—This subject, too, has its appointed place in our seminaries of learning; and that it is a study required in our higher schools for the female sex, as well as in our colleges, is a happy indication. But, the unintellectual, unmeaning process of reciting merely the paragraphs of a text-book, has the same injurious effect in this as in other departments of education. No subject can be presented to the mind on which the importance of clear and distinct views, or deep impressions and personal convictions of truth, are so important to the student, as on this;—none on which the utmost rigor of deduction, the closest investigation, the most cautious induction, are so imperatively demanded. The mere verbatim committing to memory, or even the careful recapitulation, of the arguments presented in the best of manuals, is a process too passive for any valuable purpose of educational influence on the individual. The second-hand knowledge thus acquired, makes too slight an impression to become a permanent personal possession; as the experienced teacher has sometimes cause to feel most deeply, when he sees a promising youth, who has recited his way successfully through a whole manual of "evidences," so easily caught and entangled in the slight web of superficial and sophistical arguments offered by a fluent fellow-student, inclined to skeptical habits of thought.

The result is quite different when the instructor prescribes, not the mere language or reasoning of a single author, but a careful comparison of several, and a *resumé* prepared by the student himself, together with a full statement of objections, and the arguments by which these are rebutted. A still deeper impression is made on the mind of the individual, when such recapitulations are made, not only in the regular form of writing, but in that also of deliberate, correct, and, if possible, earnest oral expression. It is thus only that great and vital truths can be woven into the texture of his own mind, and become, as it were, inseparable parts of itself.

Practical Exercises.—In conclusion of these suggestions regarding the development and discipline of the reflective faculties, a few other forms of practical exercise may deserve attention, as matters which devolve on the personal action and diligence of the teacher,—in regard to the aid which his living instructions and intelligent supervision ought to furnish, in addition to the customary course prescribed in manuals or text-books; and here we may advert to the great value of

(1.) *Systematic Reading*, as a means of cultivating reflective and thoughtful habits of mind,—reading, I mean, which is *study*, and not mere *perusal;* reading which is attentively done, carefully reviewed, exactly recorded, and, if practicable, orally recounted. Memory, under such discipline, becomes thoroughly retentive, information exact, judgment correct, conception clear, thought copious, and expression ready and appropriate.

(2.) An important aid to systematic reading may be found in the exercise of writing a careful, marginal *synopsis* of valuable works, comprising all their principal *topics*, distinctly presented, and, in addition to this, a penciled *analysis* of every prominent head or paragraph into its constituent subordinate *details*. In the case of standard works of great value and permanent authority, it may be worth while to draught a separate *plan* of the entire *work* under study, in which the synopsis and the analysis are so arranged to the eye, that the advantage of a mental map of the whole subject is secured for distinct and easy recollection, by the union of logical and ocular method.

(3.) As a means of training the faculty of *judgment* to correctness in its decisions, and exactness in discrimination, exercises in *analysis*, on every description of material, are of the greatest value. In the earliest stages of education, these may be performed, to great advantage, on objects in *nature*, particularly on the structure and organization of plants, with the aid, too, of the microscope. At a more advanced stage, the analysis of *language*, successively extending to sentences, clauses, phrases, words, and syllables, in written as well as oral forms, is another exercise of great value for sharpening the power of discrimination and forming habits of correct judgment. Still greater benefit attends the oral analysis of *discourses*, essays, and other didactic compositions, for the purpose of tracing their authors' trains of thought, following these in detail, and afterward recording the analysis, as has been already suggested.

(4.) To cultivate successfully the reasoning faculty, no method more effectual can be adopted than that of training the mind to a perfect observance of the prime law of *Order*. This great principle comes to the aid of the young mind, as creative ordination applied to chaos. The countless multitude and variety of objects soliciting observation, in the early years of childhood, and even at much later stages, often throw the mind into confusion and perplexity, till *order* comes to its aid, and, like the benevolent fairy in the fable, *arranges* the complicated masses and irregular accumulations, and lets in the light of *system* and *method* upon the elements of the mental world. Conflicting objects and relations are thus parted by due *distinction*; accordant elements and phenomena are grouped together, by their *analogies* and *affinities*, their *connections* and *dependencies*, the *predominance* of some and the *subordination* of others; till, at length, the authority of *Law* is recognized, and harmony established.

To attain this result, *Reason*, the supreme ordaining faculty, has to exert its power in various modes of operation. *Judgment*, as reason's executive, has to *collate*, *examine*, *compare*, *associate*, *combine* and *classify* the objects of observation and the subjects of consciousness. For such purposes no exercises can be better adapted than those which commence with the action of the *perceptive* faculties, and yet involve the use of the *reflective*, to a certain extent. Nature's great systems, in her three vast kingdoms, furnish, of course, the best material for such exercise and discipline of the mind, by combining with its perceptive action the aid of reflecting reason, in the contemplation and study of the vast domain of creation. As a noble discipline for the rational faculties, in their ascendancy over those of outward observation, and yet in perfect harmony and coöperation with them, no exercise can be more beneficial than that of surveying, in the light of *science*, the elements and forms of external nature. An illustration in point may be found in the science of *botany*, which is now rendered so generally accessible and so highly attractive, by recent manuals presenting this subject on the "natural" system, as an instructive and interesting branch of knowledge for all minds. Another example occurs in the arrangement of the *animal* kingdom presented by Cuvier, and modified by our great contemporary naturalist, Agassiz. The generous labors of this distinguished instructor, in his endeavors to bring his favorite subject before the minds of teachers, in forms happily adapted to the condition of their schools, have afforded the best suggestions for conducting appropriate exercises in this department of education. And it is to be hoped that many of our seminaries will henceforward enjoy the benefits of the admirable mental discipline resulting from those habits of attentive observation, careful examination, and close analysis, as well as those of orderly arrangement, enlarged contemplation, and systematic classification, which the thorough study of nature is so happily adapted to insure.

But it should never be forgotten by the teacher that it is the extent to which the student is induced to carry the *personal observation* and *actual collection* of natural objects, and the care and fidelity with which he arranges his specimens according to the requirements of scientific classification, which determine how far the higher powers of his mind will be benefited by the study. There are too many seminaries, even now, in which the teacher, far from following the instructive personal example of the eminent authority to whom we have just referred, and joining their students in the actual exploration of nature, in the field exercises of observing and collecting, permit them to stay within doors, and "study" the whole subject by book.

The value of personal observation and actual investigation, as the only sure means of rendering the educational materials furnished in external nature, and in the action of the percipient intellect on these, conducive to the development and discipline of the mind's reflective power, is evinced in all the other relations and departments of physical science. The study of *astronomy*, as commonly conducted in our seminaries of all grades, has been, till recently, a process of mere book-work, of committing to memory the successive sentences of a manual, and repeating them by word of mouth. The actual observation of the heavens was a thing not thought of but as a matter of occasional gratification to curiosity; while, to render astronomy an effective instrument of mental culture, capable of awakening attention and eliciting reflection, the nightly survey of the varying aspects of the firmament, in conjunction with the passing hours, and the actual positions, or apparent shifting of the planetary bodies, should be continued till the eye finds itself, so to speak, at home in that upper world of wondrous facts, and the observer can literally "call the stars by name."

Many teachers have it easily in their power to render the young mind this noble service, which may stamp a thoughtful character on its habits of action for a whole life-time. Happily, many of our colleges are now enabled to offer to those who enjoy the superior opportunities of study afforded by such seminaries, the facilities for actual observation, which modern science and art so amply provide, in this department of education. But, in most of our higher schools and academies,—even in some which are favored with the possession and occasional use of a telescope,—the actual study of the heavens, even with the naked eye, or the humblest endeavor to note the position and movements of the heavenly bodies, so as to enable the learner intelligently to read the sky, remains, as yet, a thing seldom attempted.

Were early education in this department rightly conducted, the young student would be prepared to receive with delight those sublime revelations of astronomical science which exhibit the laws of order and subordination,—of mutual influence and adjustment,—ruling in the apparent "wilderness of worlds," and indicating the controlling power of that Reason which presides in eternal supremacy over the universe.

CONCLUDING EXPLANATIONS.

The brief and imperfect survey of the ground and principles of intellectual culture, which is here concluded, was, as has been intimated, originally presented in the form of conversational oral lectures to successive classes of young teachers and of persons intending to enter on the occupation of teaching. The views presented in these lectures were adapted, therefore, to the mental circumstances of students to some of whom any form of systematic investigation on the subject of intellectual discipline was wholly new, and to many of whom the philosophy of education was, as yet, a field unexplored. This fact will serve to explain the strictly elementary character of the preceding discussion, and the familiar style of its illustrations, as well as the frequent iteration of special topics; while the vast importance of the subject itself, in relation to the anticipated office and duties of the teacher, as the educator and guardian of the young mind, together with the acknowledged too general neglect of such considerations, rendered it necessary that the lecturer should endeavor to present the whole work of education in the impressive light of the highest relations and principles of human action.

To some of the readers of this journal, therefore, the whole series of these lectures may have seemed common-place and uninteresting; and to others the course of analysis may have seemed too abstract and philosophical for the ordinary purposes and business of education. The contributor of this and the preceding communications of the series to the pages of this journal can only plead, in answer to both classes of objections, that, for many years, his personal field of observation and of action has made it necessary for him to endeavor to meet the wants of ingenuous minds, conscious of deficiencies in their own course of early training, and earnestly desirous of the guiding light of the simplest, yet the highest, educational principles, to direct their own efforts for the advancement of others. Successive years, occupied in three of our New England States, in endeavoring to aid the noble aspirations of those whose daily labors form the ground of the intellectual and moral hope of the community, have convinced the writer that the teacher's professional wants are most satisfactorily met when elementary principles of education are simply stated and practically illustrated, and the highest relations of human duty are presented as the motives to personal and professional action.—Long may the "plain living and high thinking" of their ancestry continue to characterize the teachers of New England!

The allusions made, in the course of the preceding discussion, to existing defects in "higher" seminaries, might seem uncalled for in a course of remarks addressed to young teachers. To explain this apparent intrusion, it may be sufficient to say, that some of the classes to which these lectures were originally addressed included among their members individuals who, though young both in years and experience, were graduates of the highest class of literary institutions, were anticipating professional employment in such establishments, and were attending the course of lectures with reference to the application, in their personal instructions, of the principles under discussion.

Apart, however, from this relation of circumstances, the consideration of principles of education, and methods of instruction, necessarily extends through the whole educational course of training; and defective methods of teaching are but little less injurious in the higher than in the lower forms of culture. The fact, moreover, is undeniable, that the renovation of the character of instruction, whether at home or abroad, has uniformly commenced in the primary stages of education, and won its way gradually upward;—a circumstance easily accounted for, when we recollect that, in the reformation, now so generally effected in elementary teaching, more regard has been paid to the wants of the *mind*, and less to the demands of *subjects*, than formerly was the case in the management of primary schools, or than is now, in the customary regulation of institutions of the highest nominal order, in most of which the *subject* of study is still too uniformly regarded in preference to the *instrument* of study.

To some readers of the journal, the intellectual philosophy, involved in the principles adopted in the preceding analysis of mental action and development, may not seem satisfactory,—as not according, in express terms, with established authorities on such topics. To objections of this character the author can only suggest that, in the circumstances of many of those to whom his lectures were addressed, it was not practicable to assume the data of a previous course of study in intellectual philosophy; and all that could properly be done, on his part, was to interweave, with his suggestions for the guidance of instructors in their professional endeavors, such elementary views of mental action and tendency as might afford intelligible ground for these suggestions.

At the same time, the writer feels free to say that, following the counsels of his own instructor, the venerable Jardine, (a student and successor of Dr. Reid,) he could not adopt any "system" of intellectual philosophy as such. All systems hitherto offered have contributed useful suggestions for the guidance of inquiry. But none, as yet, can be regarded as exhaustive or complete. The *mind*, as a subject of study, has not yet received the humble measure of justice which we yield to a plant or a mineral,—a careful observation and close examination of its own character, apart from the obscuring influence of the conflicting views and metaphysical speculations of great writers and eminent authorities. But, to the teacher, philosophical theory is a doubtful aid, compared to his own daily inspection of the mind itself, in its actual working and obvious tendencies. He is, if he understands his position, himself a primary observer, authority and reporter, in the science of mind, as developed in the processes of education. His work is that of a living philosopher, in act. To his young disciples, he is Plato, and Socrates, and Aristotle, embodied in one person ;—opening to their expanding minds the highest spiritual, moral, and intellectual relations of truth.

The ground thus assigned as the field of the teacher's labor, is not too high to be assumed by any instructor, whatever be the nominal rank of the seminary in which he teaches. A mind accustomed to large views, and working on broad principles, will, unconsciously and necessarily, adopt methods correspondent, and will radiate, from its own action, light and truth throughout the sphere of its influence. Nowhere is this statement more strikingly verified than in the case of an intelligent teacher, in the direction and instruction of an elementary school. It is in this sphere that ingenuity, and tact, and originality, and skill are most needed, in endeavors to develop intellectual capabilities, and build up the great fabric of mental power. Nowhere else, in the whole field of education, is the demand so urgent for a thorough insight into the nature and working of the mind, for the light to guide its advances, or the power to mold its expanding character.

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THE TRUE ORDER OF STUDIES.

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THE TRUE ORDER OF STUDIES.

(FIRST ARTICLE.)

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We take it for granted that there is a rational order of development in the course of the sciences, and that it ought to be followed in the course of common education. Starting from these assumptions, we seek to find what that order is, and arrive at the conclusion that there are five great studies for the human spirit, — Mathesis, Physics, History, Psychology, and Theology, — which must be pursued in the order in which we have here named them. This circle of five points must be embraced in every scheme of education, whether for the nursery, the subprimary school, the primary school, the grammar school, the high school, or the college. No one of them is to be omitted, in any school, until the student enters the professional school in which he is to prepare directly for the exercise of his profession or calling in life.

We also take it for granted that there is a natural order of development in the human powers, and that studies should be so arranged as to develop the powers in this order. Starting from this assumption, we arrive at the conclusion that the ability to receive impressions, that is, the perceptive power, first shows itself; next, a power to conceive or imagine; thirdly, the power of reasoning; fourthly, the power to decide and act upon the decisions of reason. Moreover, these faculties are called out in their proper order of development by taking the five branches of study in their proper order, — and this harmony of the results of our two lines of inquiry is a presumptive proof of their correctness.

These are the conclusions at which we have arrived, and which we propose to illustrate somewhat at length in the present paper. Their great breadth and generality, and the demand which they make, upon those who accept them, to change the whole character of our education from the hour of the child's birth to the day of his graduation from college, must be our apology for the length of our remarks, and for our request that the reader should not dismiss them from his mind without a candid consideration of their value.

It is manifest that the faculties which are first developed should be first exercised by a judicious training. It is true that, in one sense, all the faculties are developed together, — that glimmerings of reason, and faint indications of a will, are perceived in the youngest infant. Thus, also, in education, the child is to be treated from the beginning as a reasonable and free agent. But the perceptive powers become perfected in their action long before the reason is matured, or the will strongly developed. For the first few years of a child's life its principal occupation is that of learning to recognize material things by their forms. This natural education in geometry begins through the eye at the age of a few days; and, during the whole of childhood, the attention is strongly directed to those characteristics of bodies which appeal to the senses. By the age of fifteen the perceptive powers are frequently in their highest state of development. The powers of imagination are not usually manifested at all until the age of two or three years; never in a distinct form before the age of seven or eight months, and seldom if ever attain their fullest vigor before the age of twenty. The reasoning powers cannot usually be shown to exist entirely distinct from the other faculties until the age of ten or twelve years, and seldom reach their perfection before the age of thirty. The will manifests itself, and comes to maturity no earlier than the power of reasoning.

Hence nature herself indicates that the studies of the child should follow in such succession that his perceptive powers should first be exercised more than any other; that his imaginative powers should next be called into play; and that those studies which require reasoning, and those which treat of his responsibilities, should not be given him at too early an age. A man must first learn facts, then conceive hypotheses, before he can reason of abstract truths, and deduce laws of duty.

It is also self-evident that there must be a natural sequence or order of truths, or, as it has been called, a hierarchy of sciences. In our view of the whole field of knowledge, we see it divided into five great branches; Mathesis, Physics, History, Psychology, and Theology. Theology treats of the uncreated Creator, and of our special relations to Him. Psychology treats of man, who may be called the created creator. History deals with the thoughts and deeds of men; that is with the creations of the created. Physics treat of the material world, that is, of the creations of the uncreated, with the creation in the usual sense of that word. Physics thus bear the same relation to Theology that History does to Psychology, and may hence be called Natural History. Mathesis treats of that field of space and time in which the deeds of History and of Natural History are wrought; that is, if we consider time and space as having objective reality, Mathesis deals with the uncreating uncreated.

Now, all possible objects of human thought are comprised under one or another of these five heads, and these five studies logically precede each other in the order we have here indicated. Mathematics must precede Physics, because conceptions of form, time, and number, necessarily precede any conceptions of material phenomena, which are subject to the laws of form, time, and number. In other words, Mechanics treats of motion in straight lines or in curved orbits, of the transfer of force in various directions subject to the conditions of geometry, of the strength of materials in various forms, and of the adaptation of those forms to the purposes of art; all of which implies geometrical knowledge. Chemistry deals with definite proportions, with the laws of multiples, and of combinations, so that it necessarily requires a knowledge of arithmetic. Botany and zoölogy in their morphology require both geometry and arithmetic; in their physiology, chemistry, and in both departments, mechanics.

As Mathematics thus necessarily precede Physics, so Physics must precede History. All that men do must be done in this world of ours, upon these materials set before us, while subject to the conditions of our material frame. All the thoughts of men must be expressed either by word, by symbol, or by a work of art; — and, of these, even words imply a knowledge of the outward world, for all words were originally figurative. Hence, every historical study must be preceded by the knowledge of a certain amount of physical truth, that is, of Natural History. We might add that while the deeds of men are wrought by physical agents, a great deal of the thought of man has been expended upon physical theories; so that a just appreciation of human thought and action requires a knowledge of that material world which has been the theatre of men's actions, and the object of so many of their thoughts.

Again, Psychology requires a knowledge of Physiology and of History. We know nothing of the human soul save through its actions, interpreted by our own consciousness; — including in its actions its thoughts as uttered in words. Lastly, Theology requires a knowledge of Psychology and of Natural History. For we can know nothing, by nature, concerning the Creator, in whose image we are made, except by first studying his works, and especially that image of Himself which He has placed within us. We may have religion with but little theology, but we cannot have any theology, at all, without some previous knowledge of ourselves, and of the other works of God.

It must be evident, therefore, that the Mathematics logically take the lead as the great and indispensable foundation of all learning. It is not only impossible to dispense with them, but impossible to place them anywhere else than at the beginning of all intellectual education. No man can possibly attain to the knowledge of anything in the world without first attaining some mathematical knowledge or power. That mathematical knowledge may have been gained unconsciously, and may not have arranged itself in a distinct scientific form in his mind; but it must be there, for there cannot possibly be any intellectual life whatever upon our planet which does not begin with a perception of mathematical truth. A natural method of education requires us therefore, to pay our earliest attention to the development of the child's power to grasp the truths of space and time.

Mathesis would naturally divide itself into three great branches, treating of space, of time, and of number. Geometry unfolds the laws of space; algebra those of time; and arithmetic those of number. Other branches of Mathematics are generated by the combination of these three fundamental branches. Now, geometry, arithmetic, and algebra, should be taught in a natural order. There is a difficulty in deciding, simply from the logical sequence, what that order is, because the fundamental ideas of the three studies are so nearly independent of each other. Pure algebra, as the science of time, cannot, however, be evolved without reference to number and space; it will, to say the least, in the very process of its evolution, generate arithmetic. But geometry can be evolved without the slightest reference to time, although not, to any extent, without reference to number. The idea of number is one of the earliest abstractions from our contemplation of the material world.

The relative order in which these studies should be pursued will, however, be made more manifest on reference to the order of development of the child's powers. Number, though an early abstraction from phenomena in space, is a much higher and more difficult conception than conceptions of form. The child recognizes the shape of individual things long before he can count them, and geometry should therefore precede arithmetic in his education. But time is much more difficult of comprehension than space, — it requires a riper effort of the mind to conceive of pure time without events, than of pure space without bodies. The latter remains, so to speak, visible to the mental eye; the former does not even in imagination address any of the senses. Geometry is, therefore, the first study in an intellectual course of education; generating and leading to arithmetic, and through that to algebra; preparing the way also for Physics, and thus for History, Metaphysics, and Theology. We must begin intellectual education with geometry, leading the child through other studies as rapidly and in such order as the amount of his geometrical knowledge justifies and demands. Some knowledge of geometry is gained by an infant within a week of its birth; and when it first comes to school it has usually gained at first hand from nature a sufficient knowledge of the laws of space to serve as a basis for a good deal of other information picked up here and there.

If, now, we consider the order of subdivision in physical study, we shall find here, also, three principal departments of science; mechanical, chemical, and vital. The laws of color, sound, odor, and flavor, may appear at first sight irreducible to either of these three divisions; but a closer examination of the question will show us that this arises simply from an intermingling of psychological relations with the physical phenomena. The three divisions of Physics naturally follow each other as we have named them. Some knowledge of mechanics, that is, of the laws of force and motion, is necessary to any knowledge of chemistry, and some knowledge of chemistry and of mechanics is necessary for any thorough understanding of plants and animals. But it is evident that all knowledge of Natural History must begin with observation; and that one of the uses of the previous knowledge of Mathematics is to teach the child to observe with accuracy. The senses through which we observe material phenomena are, of all the human powers, the earliest to be developed, and should, therefore, be the first to receive a deliberate cultivation. Now, the mechanical relations of bodies, including color and sound, are those most obvious to sense; the chemical are more difficult of discovery, and the effect of vital powers can scarce be perceived without an interpretation from our own consciousness. Thus it is manifest that the order of arrangement in these three departments of Physics is conformed to the order of development of the human powers; and we may add that, in every subdivision of these smaller departments of science, the same principles of classification will give us both a theoretical and practical guide to the natural and most effective mode of teaching them; — we must give first that which is most dependent upon direct perception, and, afterward, that which is more dependent upon an analysis of consciousness; — give first that which is most nearly a simple function of space, and, afterward, that which demands the conception of time or of force.

In attempting to subdivide the great department of History, we shall find difficulties arising from the complexity of the objects of human thought and action, and from the multiplicity of modes in which men have expressed their thoughts and emotions. But we are inclined to make our primary division fourfold. In the first division we should place Agriculture, Trade, and Manufactures; in the second the Fine Arts; in the third Language and the history of thought; in the fourth Education, Politics, and Political Economy. That is, the first division should embrace the history of men's operations on material things to produce a tangible product; the second should treat of men's use of forms, colors, and tones, in the expression of thought; the third, of the expression of thought through words; the fourth, of men's action on each other.

In Psychology we might, perhaps, divide man into intellect, heart, and will, giving rise to intellectual, æsthetic, or moral and religious philosophy.

In Theology we should be obliged to feel cautiously our way by the light of Scripture. A natural division might be to consider the Divine Being as being first the Creator of the world, secondly the Father of all spiritual beings. The first would lead us to what is called, generally, Natural Religion, the second to themes more peculiar to Revealed Religion; the first would treat of the relation of the physical world to its Maker, the second of our own relation to Him.

Thus, out of the five great branches of learning, Mathesis, Physics, History, Metaphysics, and Theology, we have made, as a first essay toward a subdivision, fifteen classes, to wit: Geometry, Arithmetic, Algebra; Mechanics, Chemistry, Biology; Trade, Art, Language, Law; Intellectual Philosophy, Æsthetics, Ethics; Natural Theology, Religion. We believe that all sound education gives, with or without the consciousness of the pupil and the teacher, instruction in all of these fifteen studies; and that there is no period of a child's life in which he ought not to be receiving direct instruction in at least some of the classes of study belonging to each of the five great branches. This instruction should be adapted to the child's age, consisting, at first, principally of those studies which come first upon our list, and of those which are named first under each branch; and giving only prophetic hints and foretastes of the higher parts of the course.

A true system of intellectual education would take the child at the age of five years and give it daily instruction in the simplest facts of geometry and arithmetic. Geometry should be taught at first without reasoning, simply as a matter of perception, either by diagrams, or, still better, by tangrams, bricks, geometrical solids, and simple models for generating curves and curved surfaces. The latter would belong to a period five or seven years later in the child's life, when the imagination is to be exercised as well as perception. Arithmetic should also be first taught by actual concrete numbers; nothing being better than a handful of beans. With these the properties of prime and composite numbers, the commutative principle of the factors in multiplication, and similar arithmetical truths, may be *shown* to very young scholars; and the laws of derivation or differentiation illustrated to older pupils. If there is any soundness in the views which we have given of the hierarchy of science, and of the development of the human powers, such works as Warren Colburn's inimitable First Lessons must not be the first lessons, but must be reserved to the age of twelve or thirteen years.

In the department of Physics, the child of five years should be trained in habits of observation. Every school for young children should have a cabinet of all the minerals common to the neighborhood of the school-house, and of all the most common plants, insects, and other animals, — or, at least, good, well-colored drawings of them, — and the teacher should take frequent walks with the children, requiring them to look for natural objects, and name them according to the lists accompanying the cabinet, until the child can name, at sight, several hundred of the plants and insects of his native town. The attention of the pupil should be directed not only to the form, but to the color, odor, sounds, tastes, roughness, or smoothness, of the various objects. The simple mechanical powers should be illustrated by simple apparatus. Attention should also be directed to the most obvious chemical phenomena, such as the oxidation of metals, the burning of coal, &c. By the age of seven or eight years, geography must be taught; at first wholly from the globe, afterwards from maps and books. It is also important to give the child early ideas of the true nature of the sun, moon, planets, and stars; their size, motions, and relative distances. These Natural Sciences, which are usually reserved for the high school, are, in fact, especially adapted, in their rudiments, for the primary school; and if the main facts were set clearly before the child's mind, at the age of from eight to twelve years, they would enlarge and develop his powers, both of observation and of conception or imagination, and he would be much better fitted to study them logically at the age of sixteen or eighteen.

In the department of History there will be no call for special instruction until the age of seven or eight years. The scholar may then be taught to observe, in the fields and shops of the neighborhood, the modes of cultivation, the machinery and manufactures, the articles of commerce, and the modes of packing and transporting them. He must be encouraged also to draw, and to sing; the drawing being at first the simplest copying of the outlines of leaves, flowers, &c., and the singing being at first simply by rote. Language he will have learned orally from his earliest years, — but at the age of five or six he must be taught to analyze words into their phonetic elements, and a few weeks or months afterward be taught letters as the representatives of these phonetic elements. Spelling, in the ordinary sense, must be strictly avoided for some years, as it has a mischievous effect on the child's whole nature, slight and usually unnoticed, but real and mischievous, as far as it goes. In order to insure good habits of reading let a phonetic alphabet (books in the Cincinnati alphabet are most accessible) be used for at least two years, and let there be a daily drill in phonetic analysis and synthesis of words for four or five years. As for Law, its rudiments will be incidentally taught, sufficiently for so early an age, by the discipline of the school-house, by accidental references to political questions, and by the rules of honor in the games and sports of the playground.

In the fourth great branch of study, the teaching will, at this early age, be also incidental. The child will learn something of its intellectual powers, its tastes, and its obligations, from its attempts at study, at drawing and singing, and at keeping the rules of school. And in the fifth great branch of Theology the child of tender age must have his reverence for the Divine Being deepened, and his conceptions of His attributes enlightened, by being taught to look upon crystals, plants, and animals, as the workmanship of His Wisdom, — the pleasures of home and of the school-room as the gifts of His love, — the actions of even children as pleasing or displeasing to Him in His holy oversight of men.

It would be tedious if we went on to greater length in defining the studies for each succeeding age, as we have defined them for pupils from five to seven years of age. We will, therefore, endeavor to show, in a tabular form, the order of study in each of the particular subdivisions of our five great branches. The left-hand column contains the age of the pupil, beginning with his entrance into the primary school at five, and ending with his graduation from college at twenty-two; the succeeding columns contain the studies. By the term incidental instruction, we signify that oral instruction which circumstances from time to time furnish the teacher an opportunity of giving, or that written teaching which the child will find in all the well chosen books that it reads at home or at school. This tabular view is not proposed as a Procrustean bed, but as a typical plan of studies, which should be somewhat modified by the circumstances and abilities of each student.

TABULAR VIEW OF THE STUDIES IN LIBERAL EDUCATION FROM ENTERING SCHOOL TO LEAVING COLLEGE.

Age of Pupil.	MATHESIS.			NATURAL HISTORY.			HISTORY.				PSYCHOLOGY.			THEOLOGY.		
	Geometry.	Arithmetic.	Algebra.	Mechanics.	Chemistry.	Biology.	Trade.	Art.	Language.	Law.	Thought.	Emotion.	Will.	Nature.	Man.	
5—6 6—7 7—8	Little bricks, blocks, and geometrical puzzles.	Counting, &c., with beans.	Rhythm	Incidental instruction	Notice	Notice flowers, insects,	Names and uses of tools, furniture, &c.	Sing, Draw on blackboard.	Phonetic analysis, Phonetic print. Common print, Spelling.	School, and family rules.	Incidental	Incident-	Incidental	Incidental instruction,	Incidental instruction,	Sub-Primary School.
8—9 9—10 10—11	Geometrical Theorems as	Simple rules, i. e. + — × ÷ on the slate.	in verse and music.	on the sensible qualities of bodies, and Geog. by the globe alone.	combustion, rust, fermentation, decay, &c.	&c. Name flowers, &c.; also parts of the human body.	Visit farms, shops, factories, &c.	Sing, draw, and perhaps play.	Phonetic short-hand and common long-hand. Keep a short-hand diary. Write simple letters to children. Read and spell.	History of United	instruction.	al instruction.	instruction on the moral laws.	directed to cultivation of reverent views of Creation and Provi-	directed to the cultivation of a conscientious spirit,	Primary School.
11—12 12—13 13—14	facts. Theorems demonstrated in	Ciphering. Mental arithmetic. Prove rules of ciphering.		Elements of Astronomy and Nat. Phil. Geog. by maps. Elements	Begin to call the attention more frequently to chemical changes.	Elements of Botany, Zoölogy, Anatomy, and Physiology.	History of inventions, discoveries,	The drawing begins to embrace landscape, the singing, harmony.	Commit extracts to memory. Begin to read French. Elements of English Grammar.	States. Histories of England and of the Jews.	Incidental instruction.	Cultivation of a good taste.	The same as above.	dence, drawn from Scripture reading and	and drawn from Scriptural readings, and	Grammar School.

14—15 15—16 16—17 17—18	Geometry solid, and spherical Trigonometry. Descriptive Geometry.	Use of logarithms. Evolution and Involution.	Simple Algebra. The language of Trigonometry. Higher Algebra.	of Optics, Acoustics, and Thermotics. Physical Geography and Geology. Higher Mechanics, Op-	Elements of Chemistry, Electricity, and Magnetism. Higher	Botany, Physi-	Elements of Agriculture, Commerce, Manu-	Music, including thorough bass, or counter point.	English Grammar. Begin Latin. English Composition and Declamation. Begin Greek. English Versification. Elements of Logic. Continue French and begin German.	History of Greece and Rome. General History. Story on the Constitution.	Elements of Intellectual Philosophy.	Elements of criticism of art, poetry, and eloquence.	Elements of Moral Philosophy.	instances of divine wisdom and power in Nature. Natural Theology and	instances of moral government, &c., in History and daily life. Natural Theology and	High School.
18—19 19—20 20—21 21—22	Conceptions of higher Curves.	Finite differences and theory of numbers.	Analytic Geometry. Differential Calculus and Integral. Hints on Higher Calculus.	tics, Acoustics, and Astronomy.	course of the same.	ology, Zoölogy, and Anatomy.	factures, as related to Political Economy. Political Economy.		Continue a more thorough study of the five languages above, especially Greek. Take up Logic, Rhetoric, Writing, Speaking, &c.	Fuller course on Constitutional Law and on History, especially of the nations mentioned above, and on the laws of nations.	Complete and thorough course, including a review of the history of Speculation.	Highest criticism of art, poetry, and eloquence.	Moral Philosophy and religious discipline.	Scriptural views of the Divine Attributes, and Dogmatic Theology.	Scriptural views of the Divine Government, and Dogmatic Theology.	College.

We of course would attempt, by this table, merely a first sketch of a plan of general study, in which there is no room for detail, and on which a great deal of careful thought must be bestowed before the proportion and arrangement of parts would be practically applicable to actual use. We have introduced it, not for the sake of giving details, but to illustrate more clearly the general principles of that plan of education, which we think is in use in Nature, and is thus given to us to learn, to understand, and to adopt. It will be observed that in each column severe study begins later than in the preceding column, and that the same is true when we take the wider columns, which are separated by double rules. The table also shows how varied and extensive are the studies which we consider necessary for a pupil at every stage of his education. From ten to fifteen different objects are always claiming his attention and taxing his powers. We have willingly brought this point forward prominently, because upon it is founded the only strong objection which we have heard advanced against our views of education, during the ten or twelve years since we first began publicly to present them.

It is said that our course of study is so extended that we should be able to give the pupil only a smattering of each; that the powers of the child would be very imperfectly developed in any one direction; and that we should end in making him a superficial "jack at all trades, master at none." In reply to the proverb, we would retort with the saying of the Stoics, "The wise man is a king and a cobbler." In reply to the charge of encouraging superficiality, we shall be obliged to explain somewhat more at length.

According to the scheme which we have given, it will be seen that, by the age of sixteen, when children usually leave the common school, we propose to give them not only the usual proficiency in Reading and Spelling, Arithmetic, Geography, and Grammar, but also to give them a knowledge of geometry, of the use of logarithms, of the elements of algebra, of the elements of mechanics, optics, &c., of the elements of chemistry, of the plants and animals of their native town, of drawing and singing, of history and of languages. Now, we confess that the attempt to introduce these studies, or half of them, as usually taught, into the common schools, in which the other studies are taught in the usual way, would only result in giving the children a confused and useless smattering of everything, a correct training in nothing. In order to make any valuable improvement in common school education, we must begin at the beginning, and lead the scholars upward by the path of nature. The labor of learning to read must be dispensed with, and by means of phonotype the task of learning to read be reduced to the pleasant sport of a few months. The stultifying process of learning to spell must, if retained at all, be made a diversion by rendering phonetic print so familiar that the ordinary spelling will be remembered for its comicality. The intense labor of arithmetic must be postponed until the child has learned all the principal facts of number, from playing with beans, and the labor will no longer be intense. Geometry must be introduced by blocks and tangrams, and addressed to the imagination before it appeals to the reason. Botany and zoölogy must be begun in the earliest years by pointing out the weeds and insects, and showing the interesting points in each creature. By thus beginning aright the child will find the subsequent path easy. But the child who has already attained the age of fourteen without any knowledge of nature, or geometry, without any training of the senses to exact observation or of the imagination to precise conception, must not expect to find his path easy.

The mode of teaching each study must also be adapted to the design of the whole course. Each study must be begun by presenting its facts to the senses or the imagination, and the order of presentation be determined by the importance and obviousness of the facts. Then the principles of the science must be presented. But the distinguishing mark of teaching on this mode must be its thoroughness and exactness. Let the fact be apprehended with precision. This is the most important aim, lying at the foundation of all education; — teach to *observe accurately*, and to repeat the observation until the precise fact is fixed in the memory. The observation should, if possible, include all the sensible qualities. The second great aim is to produce, in imagination, vivid and definite images of things defined or described in words. The third great aim is to unfold principles in such way as to make them facts to the pupil. When a child observes accurately the principal facts of a science, and remembers them; conceives clearly its hypotheses; and understands thoroughly its leading or fundamental principles; that child has not learned that science superficially. It has taken him but a few months to gain this knowledge, — and the amount of it is small; but the question of superficiality or thoroughness is not a question of quantity, but of quality. Inaccurate observation, imperfect conception, erroneous view of principles, these are the proofs of a superficial knowledge. But the accurate observer, clearly apprehending and understanding what he sees, is thorough as far as he has gone, even from the beginning. And if a proper selection of facts, hypotheses, and principles, be made when beginning a course of instruction, in any study, it requires but a moderate time to impart a valuable general acquaintance with any science;

not a vague recollection of a multitudinous array of particular facts, but a definite conception of the scope and spirit of the science. Ordinary text-books cannot, in general, be depended upon to give such views. They are not prepared with reference to a broad scheme of education, and they comprise in themselves material for the instruction of older as well as younger scholars. Even those text-books which are arranged in series err by making the whole series too diffuse, and lacking in clearness. Of all the multitudinous text-books which, in a long service on a school-committee, we have examined, we have only seen four or five that were of the highest order of excellence; and even of those some of the best are misused, — put in a high school when they belong in a primary, or in a primary when they belong in a high school. The book for the primary school should present facts and rules judiciously selected and carefully expressed, — the book for the high school should present principles; selecting the broadest, most comprehensive principles, and putting them if possible into a form in which they will be directly applicable to use. The highest use, however, of all learning is to fill the pupil with a deeper sense of the power, wisdom, and love of God, to lead him to a more perfect consecration to the service of God; — and what is commonly called practical is only valuable when used in that service. The five great branches of the hierarchy lead to theology, and theology to religion. The will is the highest faculty, and its highest function is to control the spirit to the service of the Highest, to the pursuit of the beautiful, the good, and the true; finding the highest beauty in virtue, the highest goodness in consecration to the service of God's creatures, the highest truth in the knowledge of Him and of our relations to Him.

But to return to superficiality, to which our scheme of education may lead those who but partially adopt it, we say that accuracy in laying the foundations, accuracy in apprehending the principal facts, accuracy in comprehending fundamental principles, is the true measure of thoroughness, and the true preparation for forming an extensive acquaintance with special facts and subordinate principles. Without this thoroughness of foundation the so-called thorough acquaintance of the specialist is of very little value; it amounts only to intellectual lumber. The child's powers are to be developed in due proportion, and he is to be furnished with the most useful knowledge that he can obtain at his age. Neither of these ends is obtained in our ordinary schooling, in which Spelling and Arithmetic, and Statistical Geography occupy the child for four or five years, and he nevertheless leaves school without ever having been led to observe the relation between *p*, *b*, *f*, *v*, *w*, or to note whether *wh* or *hw* comes nearer to the initial sound of such a word as *when;* he leaves school without knowing that every number is either prime or the product of certain primes; without knowing how many great coast lines are arcs of great circles tangent to the polar circles, or having a clear idea what physical fact in nature is represented by those polar circles.

Our remarks have thus far had almost exclusive reference to simply intellectual education. Let it not be supposed that we ignore other branches of instruction. A child is a spirit, whose will manifests itself through a body under the guidance of reason, and at the impulse of passion. Here are, then, four kinds of education which he needs, — an education of the body, an education of the heart, an education of the intellect, and an education of the will. These four departments of culture must proceed together harmoniously, and will do so easily according to our scheme of intellectual education. The body must be cared for, by giving the child abundance of out-door cheerful exercise. At home the parents must also provide suitable food and clothing. The special organs subservient to the mind should receive also the teacher's care. The susceptibility of the senses to external impressions differs by nature, but the differences of this susceptibility are usually marked by the still greater differences produced by culture, in the ability to interpret those impressions. Careless observers of the blind have reported them as having marvellous sensitiveness in the organs of touch and of hearing; but the marvellousness is not in their sensitiveness, but in the accuracy of judgment, acquired by habit, concerning the bearing of faint impression through those senses. The accuracy of our judgment upon sensations may always be improved by a culture similar to that imposed by nature upon those deprived of part of their organs of sensation.

The present paper has been chiefly occupied with a sketch of the true order of studies in intellectual education. The three other parts of a child's training are equally important, and each opens a wide field of investigation and discussion.

Physical education must give the child, as far as hereditary weakness of constitution, or unavoidable accidents of position, allow, a healthy, vigorous, strong body, with quick and accurate senses.

Intellectual education must develop the child's power of thought and give him a clear understanding (as far as it is permitted to our capacity), of his relation to the world, and to his Maker. This education is to be conducted with reference to the order of succession in the great hierarchy of Science, as we have explained at length in the present article.

Moral culture must develop in the child, as far as native gifts will allow, pure tastes, a cheerful and affectionate temper, a loving, confiding heart, a tender conscience. This culture is, in general, to be effected not only by precept but by example, and by treatment; — showing to the child the temper you expect from it in return, and leading it at least to do those things which a good heart would prompt a wise and good man to do.

Religious culture is the development of the will. It begins, therefore, so soon as the child is taught to apply itself either to study or to work. The necessity for labor is the first serious demand upon the will, and develops that power which most nobly manifests itself when the young man, on arriving at mature life, devotes himself with unwavering earnestness to serving God and God's children in that mode in which he judges he can serve them most effectually; forgetting all purely selfish aims, and counting not even his life dear to him if he can finish the work which has been given him to do.

We propose to continue, in future numbers of this Journal, the discussion of these views of education, taking up the five branches of the hierarchy in succession, and showing in what manner the general principles which we have now announced should influence the practical work of the teacher and of the parent, especially in the earlier years of the child's life. We are fully aware that in so large an undertaking there is room for error of opinion; but of the correctness of the first division of the hierarchy into five branches we have no doubt; nor of the propriety of cultivating observation before imagination, and imagination before reasoning. Still less can we doubt that the primary need among educators is the need of firmly-established and wide-reaching principles, such as those which we have here attempted to attain. If any man thinks that we have failed, let him join with us in hoping that we may, at least, stimulate some reader to more successful efforts.

THE TRUE ORDER OF STUDIES.

(SECOND ARTICLE.)

BY REV. THOMAS HILL,

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In our former article we gave a general view of the whole field of education as it presents itself to us. We propose, now, to take it up more in detail, and, in the present article, to treat particularly of early instruction in mathematical studies. But, before we begin the discussion of the special subject, let us briefly recapitulate the general views, which lead us to assign this special study a primary place in education.

A child's will, under the guidance of reason, and at the impulse of passion or feeling, manifests itself through a physical organization. A fourfold education is therefore needed. It is essential that the body should be in good health, and that its powers, both of perception and of action, should be trained to promptness, accuracy, and efficiency. It is necessary that just sentiments and pure emotions should be fostered, evil passions and wrong desires repressed. Nor can we neglect the enlightenment of the reason and the training of the logical powers. Least of all will a true education fail to give energy and purity of purpose to the will.

Now, these four modes of education, — the religious, which directs and strengthens the will, the intellectual, which informs and develops the reason, the moral, which cultivates the taste and restrains the passions, and the physical, which exercises the senses and develops the muscles, — must be carried on together, and not one of them can be neglected with impunity by those intrusted with the education of youth, whether in the nursery, the school, or the college.

Again, there are three sets of intellectual powers, — the perceptive, the conceptive, and the logical. All knowledge rests on a double basis of perception and conception; but perception logically precedes conception. The powers of imagination and reasoning are developed through the exercise given by observation; hence the natural order of education would be, to teach first those sciences most dependent on observation, and lastly those most dependent on consciousness. Now, this order will lead us first to mathematics, the science in which consciousness plays the least important part; for, although our ideas of time come from inward observation, and are thus partly derived from consciousness, the idea of space, which is the more important element in mathematics, is wholly from without. But in no. other science is there any idea which is wholly free from dependence upon our own consciousness of power. Geometry is thus shown to be naturally the first study for a child; it is of all studies least dependent on intuitions, and therefore is best adapted for the undeveloped mind. But geometry and the mathematics in general have a higher claim to be the first study of a scholar than their mere adaptation to the weakness of the inexperienced student. They are the necessary prelude to the understanding of other sciences. It must at all events be conceded that a minute and thorough acquaintance with mathematical principles is a necessary part of any successful preparation for the study of physics. Geometry or the calculus is the Ithuriel's spear which is able to make a plausible physical theory assume its true appearance of falsehood and deformity.

But, among the various branches of mathematics, which takes precedence in time? Which comes first in the order of study, — geometry, algebra or arithmetic? Beyond all controversy, we must say geometry. The idea of form is the first of all the ideas, on which any science has been founded, to enter the child's mind. The child learns to recognize innumerable objects by their shapes, many months and usually even several years before it is able to count. What stronger testimony could Nature bear to the propriety of teaching geometry before arithmetic? We may also remark that the history of the race confirms this view of the proper succession of mathematical studies. Geometry had made great advances while yet arithmetic was but partially developed, and algebra had not yet been invented.

A young child, whose attention is easily arrested by mere differences of figure, will usually prove an apter scholar, in geometry, than an older child, whose mind has become partially accustomed to abstract thought, and whose attention is not so readily fixed on differences of simple outline. We have, for the sake of testing this view, given isolated experimental lessons to children of various ages, and to the same child at various periods of his life; and, although we have not kept any such precise record of these experiments as their importance deserved, we have been convinced that they sustained our theory. A boy of fifteen, who has never studied geometry, is not so well prepared to study it as he was at the age of eight or ten. Of course we do not mean that a child under ten years of age is capable of following geometrical demonstrations; — this would be contrary to all our philosophy of the subject. The powers of reasoning required in geometrical demonstration are not developed until four or five years later.

One great cause of the neglect of geometry, in our primary school education, is doubtless to be found in this false view of the study; — that it is simply a logical drill. Even many of the admirers of mathematics, pleading for the use of geometry in education, take this view of the study, that it is a means of developing the power of continuous thought and consecutive reasoning. Thus, also, in Sir William Hamilton's argument against the study, he contents himself with showing that other sciences afford better training for the powers of logical thought.

But the powers of observation and the powers of imagination or conception are as important as those of reasoning; and the great value of geometry for the young child is the stimulus which it gives to the habit of exact observation, and to the power of clear, definite conception. In order to produce this beneficial effect upon a child's mind, it must however be presented in a form adapted to his powers, and to his natural modes of thought. We have found, in our own experience, nothing better, for the first lessons, than the little bricks described by Miss Edgeworth. We do not refer to the blocks of various shapes which may be ordinarily found in the toy-shops. Those described in "Frank" are much better, — rectangular parallelopipeds, whose dimensions are in the ratio 1 : 2 : 4. Those which we have had manufactured and placed for sale with Messrs. Holden & Cutter, Boston, are of birch or maple, two inches long, one inch wide, and half an inch thick. When made with care, exactly in these proportions, and provided with a small percentage of blocks having the same width and depth, but of the length of one inch and of four inches, they furnish the means not only of inexhaustible amusement, but of valuable intellectual development. They should be in the hands of a child from the time he is eighteen months old to the age of ten years. The child must be taught to lay these bricks exactly, breaking joints, binding courses together, and so on, as in real brickwork. The variety of structures, all beautiful and symmetrical, which an ingenious boy of ten years old will make with a hundred of these assorted blocks, would astonish the uninitiated. Square and circular buildings, pyramids, crosses, gateways, columns surmounted by crosses, and natural arches of various forms, may be combined in a variety of modes. For the building of real arches, centerings must be provided, and also a substitute for mortar in the shape of numerous little keystones or wooden wedges, one of which is to be inserted in each joint of the arch before the centering is removed.

It will be apparent that this play cultivates the imagination, as well as the observing powers, and leads, under the guidance of a teacher, to habits of precision in observing and in acting.

The second means of geometrical education is to be found in the Chinese tangram or geometrical puzzle. This consists in giving a child the outlines of a figure, and requiring him to form the figure by placing together a given number of pasteboard triangles. Outlines should at first be given, which may be formed by placing together two or three triangles, and the complexity of the outline may afterwards be increased so as to require as many as seven pieces of pasteboard. These puzzles are adapted for children of the age of from four to twelve years. They cultivate the power of exact observation, and of the rapid analysis or dissection of forms.

When the child is able to analyze figures composed of three or four triangles, which may be at the age of from six to eight years, he will be ready for geometrical truth in an abstract form of words; but great care must be taken that he do not learn to say the words by rote. The great value of geometry, to a child of that age, lies in the power, which it may give him, of building a clear and precise image in his mind of that which he has not actually seen. Care must also be taken not to attempt to make him understand the proof of the proposition which you announce to him; — let him receive it on trust, as food for his imagination, and not attempt to establish it as a datum for reasoning. If the child asks for proof, and the demonstration is fully within the grasp of his mind, it may be well to give it to him; but there are few children under ten years who are capable of understanding the simplest geometrical demonstration. On the other hand, there are primary schools in Waltham in which scores of children, under ten years of age, have been made thoroughly acquainted with the leading truths of the geometry of the triangle and the circle; many also, under the age of twelve, who have obtained a clear knowledge of the relations of the cycloidal curves to their evolutes, and of some of the principal theorems concerning conic sections and the catenary curve. The value of this knowledge to these children will be manifold. It has already afforded to each of them an excellent culture of the power of clear and definite conception; it has enlarged their sphere of thought, and linked the highest mathematical truth with their playthings, — the hoop, the swing, the jumping-rope, and the ball; it has made them partakers in the fruit gathered by the highest spirits of our race. This clearness and precision of observation and of conception will be of use in every occupation of life, and render their testimony and their judgment of more value to themselves and to other men; even the powers of the eye and of the hand will be more likely to receive an accurate self-culture, for use in the mechanic arts, from this imposed culture of the geometrical imagination. And if there be, among the children thus early furnished with the germs of this science, any scholar whose natural gifts peculiarly fit him to advance its progress, or to use to advantage the higher mathematics, there is nothing which could more surely lead him to application than to give him the curious and interesting results which have been attained by the application of others. As the imagination is stimulated to action by the visible forms of nature, so is the reason stimulated to action by the creations of the imagination. The sight of a hanging chain, for example, stimulates the imagination to conceive of the curve line formed by a chain of infinitely small links. This conception arouses the logical powers to inquire into the relations of the parts of such a curve to each other. A boy of ten years old, playing with a chain fence, may be taught, and may, by his muscular power, roughly test the truth of the assertion, that the horizontal tension of a chain is equal to the weight of a piece of chain equal in length to the radius of curvature of the lowest point of the curve; and may easily draw the corollary that no amount of power can draw a flexible thread horizontally, *perfectly*, straight. The marvellousness of this corollary will fix the theorem ineradicably in his remembrance; and, if he be a boy of mathematical power, he will, years afterwards, when he takes up the demonstrations of geometry, wish to know the proof of the proposition. But he will find that simple geometry is not enough. He takes up algebra, and applies it to geometry, but the theorem is still too difficult; he adds the resources of trigonometry, but is no nearer the proof that he desires. He enters college, and learns the marvellous uses of Descartes' coördinates, but this simple problem is beyond the reach of their magic. Finally, his curiosity, aroused so many years before, is gratified when in his senior year he has learned something of Leibnitz and Newton's Calculus, and something of the Analytical Mechanics of Lagrange, and takes up the discussion of the catenary curve. Nor does the student who has early learned such truths come to these studies under the same disadvantages as ordinary scholars. The young men of our colleges, when entering on the study of the higher curves, have a twofold difficulty, that of mastering the conception of the curves, and that of mastering the use of the analytical instrument by which they are investigated. But when the student has already a knowledge of the curve, and an ease in producing geometrical pictures before his fancy, he can bend his whole force upon the mastery of the analytical instrument.

At the same time that the child is expanding his powers of geometrical conception,—that is, from the age of six or eight to that of eleven or twelve, according to his ability,—he should also be gaining simple ideas of numbers. And, in doing this, he should follow the order of nature, and begin with concrete numbers, such as beans, corn, balls, or counters. Beans are, on the whole, the cheapest and cleanest. They should not be employed in a niggardly way. Let the child see heaps of ten, heaps of a hundred, and heaps of a thousand. He should not be accustomed to use the names of numbers in counting, without gaining by sight a just conception of their meaning, which he cannot do from the petty number of balls upon an ordinary abacus. Not that the pupil is to be principally occupied with large numbers. On the contrary, he will find in numbers under thirty occupation for many a series of most interesting and instructive experiments with beans. Give him, for instance, 29 beans, and bid him divide them into any number of equal heaps that he can. When he has found that his task is impossible, take away one bean, and let him find that 28 may be divided either in four sevens or seven fours. Then add two, and let him discover that 30 may be divided into six fives or five sixes; two fifteens or fifteen twos; two groups of three fives, or two groups of five threes; three groups of five twos, or three groups of two fives, and so on. Thus alone can a clear knowledge be given of the actual difference between a prime and a composite number. Nor is this the simplest example. Begin with two beans,—teach the child to recognize it as a couple, as two, in whatever position. Add one,—teach him to recognize it as a triplet, as three, in whatever position. Show him that $2+1=3$, and $3-1=2$, $3-2=1$. Add another bean. Show him it can be divided into two couples. Show him that $3+1=4$, $2+2=4$, $4-1=3$, $4-2=2$, $2\times 2=4$. Add another bean; it is no longer divisible into equal parts; drill him on recognizing five as a quintette,—as five, in whatever position they are placed, and on the addition and subtraction of its parts. Take up six,—lead him to divide it into three couples, or into two triplets. Explain by the beans the two meanings of dividing six by three,—that is, of either separating it into three equal parts, or of separating it into equal parts each of which consists of three. Show the identity of 3×2 and 2×3, each equalling 6. Proceed in this way with all the numbers, and you will find many months pass before the pupil will recognize a dozen as a dozen, at a glance, and before he will unravel the various combinations of groups, similarly constituted, into which 24 beans may be arranged, such, for instance, as two groups, each of three couples of twos.

The teacher of the common school may object that he has no time for such an exercise. He should then make it, by omitting the more difficult and abstract studies to which a pupil of this age is sometimes condemned. The quickness of perception given by the exercise of counting small parcels of beans, under twenty, at a glance, is more valuable to a child of that age than the intellectual discipline of mental arithmetic. In nearly every school of New England a disproportionate amount of time is given to arithmetic. The science is taught backward, beginning with reasoning instead of with observation, and is hampered also with factitious difficulties produced by a variety of unessential names and processes.

When, by means of the beans, the idea of numbers has been made familiar as well as their names, the pupil should take up written arithmetic; this may, perhaps, be at the age of eight or ten. The decimal notation is to be taught, and by means of a thousand or so of beans rendered intelligible and impressive. For decimal fractions, which should be taught (as in Pliny E. Chase's treatise) at the commencement of exercises on the slate, break up two or three dry beans into small pieces, from which select ten that are nearly one tenth each, and also some of the finer powder, which may represent hundredths. When the pupil thus perceives that the decimal scale is capable of representing the infinitesimal as well as the infinite, let him also be made familiar with the fact that the unit is in general an arbitrary standard, and that the same quantity of beans may, by removing the decimal point, be represented as so many tens, or hundreds, tenths, or hundredths.

After the pupil has made himself complete master of the four fundamental rules (including long division, in decimals), and of the principal characteristics of prime and composite numbers, let him take up mental arithmetic, and be kept at it until he is complete master of Warren Colburn's first lessons. This may not, however, be accomplished before he has, at the same time, made himself a proficient in all the ordinary operations of arithmetic. In the choice of a treatise upon this science, we have given a decided preference to Pliny E. Chase's over all others, because of its simplicity, and because of the immense number of its examples, — which two qualities render the learner expert in figures in a much shorter time than is usually given to this study. The whole subject is usually introduced to the child's mind too early, and he is kept at it to too late a period in his education.

By the time that the pupil has mastered his ordinary arithmetic he will be ready to return to geometry, and take a simple course of instruction in geometrical demonstrations, and in the application of geometry to practical use. The great master of antiquity has left in his "Elements" a model of the reasoning art, but it is not in a form best calculated for young minds. The process of analysis naturally precedes synthesis, and must necessarily precede it in the mind of one who would demonstrate a new proposition; hence, a text-book ought to give more examples of analysis than of synthesis. Moreover, the object of a geometrical demonstration is not simply to prove the theorem demonstrated, but also to impart to the pupil the power of demonstration; for which reason a text-book ought to be interspersed abundantly with undemonstrated propositions and unsolved problems, as is the case in works on arithmetic and algebra. If no such text-book is readily accessible, the teacher should select, from books not in the scholar's hands, theorems allied to those which the scholar is studying, and propose their solution as an exercise for the class.

When the pupil has made some progress in geometrical demonstrations, say at the age of thirteen to fifteen, he should be taught the use of logarithms. Only a few weeks' practice will be required to give him ease and rapidity in the use of this "wonderful rule," this marvellous "new instrument" of the seventeenth century. Logarithmic tables, while in all the more difficult calculations of astronomy, geology, and civil engineering, they are an indispensable aid, are very seldom resorted to in other cases where arithmetical results are required. Yet, as there is nothing whatever difficult in their practical application, and a facility in using them once acquired is not easily lost, there seems no reason why they should not be found in every counting-room, and used as occasion requires.

The scholar should also at this age begin to acquaint himself with algebra. With the mathematical preparation which we have now recommended, the ordinary processes of algebra will present few difficulties; and in one or two years the scholar will find the solution of equations of the first and second degree, and approximation to higher roots, by means of derivatives, a familiar and easy task.

A short and simple course of trigonometry, and a very elementary course of perspective, and of descriptive geometry in general, will finish a high-school course of mathematics.

The college course will vary according as the system of instruction embraces or omits voluntary studies. Our whole scheme of instruction, as exhibited in the tabular view (pp. 188–9 of this Journal), is based upon the idea that every human being needs education in the five branches of the hierarchy, and in each of the great divisions of that branch. The amount of study in each branch will depend in part upon the capacity of the scholar. We have endeavored to lay down a scheme extended enough to satisfy all except rare instances of extraordinary talent, and yet simple enough to be within reach of a fair proportion of our children. From our observation of the public schools of our own town, we should say that twelve or fifteen per cent. of the children in New England can, without any over-exertion, go through all that we have here laid down.

In the tabular view given in our former article, we have placed the rhythm of verse and music among the early incidental studies of algebra. The connection between algebra and the science of time is not so obvious as that between geometry and the science of space, and this is not the place to introduce any discussion of the reality of the connection. But it is the opinion of some of the highest mathematical authorities of our day, that even the idea of number involves obscurely the idea of time as well as of space; and that the laws of algebra are primarily the laws of progression in time, — that they are rather illustrated than fulfilled by geometrical forms. If this be so, the cultivation of an ear for rhythm, the custom of beating time to music, and of attending to the balancing of musical phrases, will facilitate the subsequent conception of equations and of their transformations, as surely as the attention to forms, and the attempt to draw outlines, will facilitate the subsequent study of geometry. It may be objected to this statement, that the best draughtsmen are sometimes notoriously deficient in mathematical power — the best musicians notoriously ignorant of algebra. It must be conceded that space and time seem capable of being approached and handled from entirely opposite points of view, and that art and science flow, as it were, from opposite poles of the mental battery. But we are persuaded that there is not a real antagonism between them, and that the apparent conflict comes merely from the limited capacity of the human mind, in which close attention to one mode of viewing an object usually excludes all other modes. In souls of a larger growth there is found to be no incompatibility, and Art and Science are helpers of each other; Geometry and Optics justifying and sustaining Sculpture and Painting, and they in turn giving new interest and delight to those sciences; while Music and Poetry hold a similar, although more obscure, relation to Algebra.

We have treated of the mathematics, in the present article, as though they were isolated subjects; but the remarks which we have made concerning their relation to art warn us that we must never forget the intimate blending of all themes of thought into one great universe of truth. The five branches of the hierarchy are all indispensable, and are all so interwoven that one is well taught only as it is perceived to lie in harmonious connection with the others. For this reason the teacher of mathematics should be prepared, during the whole of the course of instruction, to point out to the pupil the bonds that link his subject with the physical world, with the laws of astronomy, chemistry, botany, and zoölogy; with the history of man, of his speculation, and of his action, with mechanical inventions, with art and with commerce; with the nature of man, capable of apprehending the mathematical thoughts that have guided the Creator of the world in the formation of all things; with the nature of that Being who has made all contained in space, or evolved in time, and subjected them to laws which are a source of such instructive and delightful investigation for his children to pursue, and which, in the forms and appearances they produce, awaken also such manifold sources of pleasure in the beauty and harmony of His works.

The principal views which we have endeavored to present in this article may be summed up in three sentences: that geometry should precede arithmetic in the training of a child's mathematical powers,—that in each of these two studies concrete forms should precede abstract language, observation and conception precede reasoning,—and that the cultivation of the power of definite conception by geometry is as truly valuable as the cultivation of the logical power. We cannot agree with the opinion that arithmetic is of more practical utility than geometry; yet, if we were of that opinion, we should still teach our children geometry first, arithmetic afterwards. For a change of occupation is a rest, and the boy, who begins with geometry and reserves arithmetic to a later period, develops his powers in a more natural order, achieves his task with less fatigue, and, at the age of fifteen, not only knows more of other things, but more of arithmetic also, than he could have known, had his taste for numerical computations been destroyed by a premature, and too continuous application to that science.

In our next article we propose to consider the proper mode of introducing the young to Natural History.

THE TRUE ORDER OF STUDIES.

(THIRD ARTICLE.)

BY REV. THOMAS HILL,

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To the second great division in the hierarchy of science we have given the name of Natural History. The word Physics might also have been used, but, in either case, the meaning of the term is to be so far extended as to include all the studies of the material world in its natural state. Inasmuch as matter is formed and governed in subjection to the laws of space and time, this study of the material world logically demands a previous knowledge of mathematics; and no natural phenomenon is understood until the geometrical or algebraical law, suggested and exemplified by it, has been, at least partially, comprehended. In proportion as the scholar's knowledge of mathematics is enlarged, his power of comprehending the physical universe is increased. And, inasmuch as a knowledge of geometry is the earliest mathematical acquirement, those parts of natural history which depend upon the perception of forms may be earlier acquired than those which depend on mechanical, chemical, or physiological considerations.

Thus, although the fundamental principle of our classification places mechanics before chemistry, and chemistry before biology, our fundamental principles of education allow, and require, some instruction in botany and zoology before any is given in chemistry or mechanics.

A perfect knowledge of animals requires a knowledge of the vegetable world, which is their food; a perfect knowledge of plants requires a knowledge of their chemical constituents, and of their chemical relation to the soil and to the air; a perfect knowledge of chemistry requires a knowledge of mechanical forces. Thus, in the hierarchy, mechanics is the first department of Natural History. But we must, of course, be understood as now giving to the word mechanics a much wider signification than usual. We are including the consideration of all those phenomena of nature that arise from mechanical laws, that is, from forces whose prime effects have been shown to depend on motion. A discussion of the boundary between mechanics and chemistry, showing, for example, why we place color under mechanics, and taste under chemistry, although interesting in a metaphysical view, and necessary for a clear understanding of the philosophy of our subject, will not be required in a purely practical consideration of the course of studies, such as we are now engaged upon.

There have lately been published several treatises on the philosophy of common things, some of which, although crowded with errors and puerilities, have a very extensive circulation. Others, free from these faults, are defective from their not containing the most fruitful facts and principles of mechanics. It is not surprising that text-books on these subjects should be grossly deficient, when we recollect that in geometry and arithmetic, the oldest and simplest sciences, it has been very difficult to find perfectly unexceptionable treatises, and still more difficult to find teachers who will use the best books in the best manner. We trust that, through the increasing attention now given to education, and especially through the influence of normal schools, recognizing teaching as a distinct and high profession, we may hereafter have better text-books upon all subjects, and also teachers capable of teaching in the best way, even if the manuals for instruction should be imperfect. In all departments of Natural History the best text-books are the objects themselves of which you would teach.

The earliest instruction of a child in the direct principles of mechanics should begin, we think, at the age of seven or eight years, and at first be incidental, that is, founded on the occurrences of the moment. In his use of little bricks for building, for example, he will have practical lessons, from which the teacher may deduce and render clear to the pupil some of the principal properties of the centre of gravity, and of the states of stable and unstable equilibrium. In playing with marbles and balls, opportunities occur for showing distinctly to a child the law of the composition of forces, the accelerating effect of a constantly acting force, the increase of momentum by the increase of velocity, and the like. The laws of elasticity also, and of the reflection of motion, may be exemplified in the rebounding of balls, the return of echoes, and the use of mirrors. Of course, it will be worse than useless to give to the child simply stereotyped phrases, or vague and indistinct ideas, such as are too often found in popular text-books; but, if the teacher has himself clear ideas on these subjects, he will find the child eight or ten years old ready to receive them. Even the principal laws of optics, of acoustics and thermotics, may be thus incidentally taught. The optical toys, which are in almost every household, musical instruments, burning-glasses, and the phenomena of dew, rain, frost, and snow, will give the needed opportunities. Only let the caution be continually borne in mind that it is much better to confess to a child your own ignorance of a subject, than to attempt to give an answer to his questions while your own views are ill-defined and unsatisfactory.

One of the earliest studies, commencing, perhaps, at the age of seven years, should be geography. Let it be taught, at first, by the aid of a globe, without reference to maps. The immense magnitude of the earth will be apprehended by the child only when, in later years, he has travelled distances that have an appreciable ratio to the earth's circumference. At first he must be content with understanding accurately its form and motions. In describing these, the teacher should be careful to use the globe only as an illustration, not as though it were the thing of which he is speaking, else the child will never transfer his conceptions from the globe to the earth. In the course of thirteen years' service upon a school committee we have never found a teacher who gave to the scholars a clear conception of the physical boundaries between the five zones, and but few who even attempted it. The differences of climate and the number of degrees of extent are taught, but the child does not know what appearances of the heavenly bodies decide the position of the tropics and polar circles. Nor do we find that scholars in general gain any clear conception of the actual direction of places. Their views, being derived from maps, are necessarily erroneous. From one of the Holbrook Co.'s globes a child can readily be made to see that a straight line from one point on the globe to another, would always go through a portion of the earth, so that to point directly towards any distant place he must always point more or less downward.

The following extract from the instructions of the school committee in Waltham to the teachers of the sub-primary schools will serve as an example of the mode of teaching geography: "Begin with the globe; set it where the sun may shine upon it; bring Waltham to the top, and make the north pole point to the north. Lay a marble on the top of the globe, and show them that the light and shadow on the marble and on the globe are similarly situated. Explain the roundness of the earth; that it is only a bigger globe, under the little globe, as that is under the marble; and that the light and shade fall on it as they do on the globe and marble, making night in the shadow, day in the sunshine. Give them vivid conceptions of the size of the earth, by showing them how small upon the globe would be the landscape visible from Prospect Hill; how near to the point which represents Waltham would be the point representing the distant Monadnoc. Show them in what countries the sun is then rising, and in what setting, and where it is vertical, by simple reference to the light and shadow on the globe; and, after an hour's attention to other studies or amusements, return to the globe, and show them how the light has travelled round. Show them, according to the season of the year, whether the north or south pole remains in light or shadow all the day. Repeat this lesson at all seasons of the year, but especially do not forget it at the equinoxes and solstices. Explain how reflection from the globe diminishes the intensity of the shadow on the marble, and the reflection from the window-seat partially enlightens the under side of the globe, while there is no window-seat under the earth to reflect light upon China and New Holland. Make the amount of reflection from the window-seat more apparent to them by covering it alternately with a black veil and a white handkerchief. In like manner, although the globe will, after sunset, be in the shadow of the earth, there is no larger body below the earth to cast a shadow on our antipodes.

"Take your children occasionally to walk; go on the hills; show them how the presence of a brook or river can be foretold from the extent of the valley, the nature of the soil, and the kind of vegetations, whether forests or grass; show them the roundness of the earth from the increasing dip of the horizon, as you ascend; make them perceive how beautiful the illusion by which we always exaggerate vertical heights and under-estimate horizontal distances; call their attention to the differences in soils, and in the rocks, and point out the effects of soil and of location upon vegetation."

The earliest lessons in astronomy may be given at a very tender age. As by the globe in the sunshine the best illustration of day and night can be given, so the idea of the moon and her motions is best communicated by procuring a ball a little over one quarter the diameter of the globe, and holding it about one hundred and ten times its own diameter from the globe. If now the moon is visible when the sun is shining, let the pupil lay the side of his head upon the globe, while the teacher holds the ball at the proper distance, in such a position that, to the child, it shall appear to be just over the moon. The sunshine upon the ball will appear to him to be of the same size and shape as the visible part of the moon. The endeavor in astronomy, as in geography, should be to lead the child's mind away from the illustration to the thing illustrated. For this reason it will be with difficulty that the school-teacher can go in astronomy to any advantage beyond the relations of the sun, earth, and moon. In order to give clear conceptions concerning the planets, stars, and nebulæ, the teacher must meet the pupils in the evening, when those bodies are visible. But it is of so much importance that the child should have early a distinct conception of the relations of the solar system that few teachers would be unwilling to perform this extra labor. Astronomy and geography are to be used as the most powerful of all studies to develop the imagination; that is, the ability to conceive clearly and distinctly unseen phenomena.

Chemical relations are more abstruse than mechanical. It requires some maturity of mind in order to distinguish chemical compounds from mechanical mixtures; and yet, at the age of nine or ten years, the simplest phenomena of chemical change begin to excite the child's curiosity; and it will be greatly to his advantage if that curiosity is gratified with correct explanations and sound principles, instead of being lulled by a plausible pretence of explanation. Oxidation, especially in the forms of combustion and rust, is the most prominent instance of chemical metamorphosis, and will afford to the skilful teacher the opportunity of giving, in what we have called an incidental way, many of the fundamental principles of chemical affinity, atomic proportion, atomic combinations, the stability or instability of chemical equilibrium, and so on. We acknowledge that this implies a large amount of intellectual life in the teacher; but one who is intrusted with the direction of these earliest movements of the expanding mind should be a person not only of some acquirements, but of some intellectual vivacity. Nothing more surely characterizes a skilful teacher than the ability to seize upon the right moment and the right occasion for illustrating the principles which he wishes to impart. One perpetual danger, it must not be forgotten, attends these essays to give the first instruction to a child — the danger of extinguishing its natural thirst for knowledge. This may be done by diverting the attention to other themes, by discouraging or disgusting the mind with difficulties, or by communicating knowledge in such a way as to puff up the child with the conceit that he now understands the whole science of which you have given him some of the simplest rudiments. The art of giving instruction may be compared to that of letter-writing, of which it is humorously said that the great secret is to make the recipient "wish there was more of it."

Inasmuch as botany, while it depends in its physiology upon chemistry, classifies plants solely by texture and form, a knowledge of the common weeds and flowers, trees, mosses and lichens, of the neighborhood, may be given to a child as soon as it is old enough to distinguish them. In the tabular view there is an accidental error, making the incidental instruction in biology commence at a later period than we should advise. From the day that the child enters the sub-primary school we would have it receive oral instruction, illustrated by living plants, if possible, or by dried specimens, or even by drawings, in systematic botany. At first the child may simply be taught to recognize the plants as individuals; so that he may be able to say, "This is a twig of sugar-maple, and this a sprig of white-birch; here is a bird-foot violet, and there a dandelion." But the plants must be recognized out of doors, as well as in the house, that the child may early learn to notice and enjoy the differences of form and color in the general appearance of the growing tree or plant.

In the first volume of Agassiz' Contributions to the Natural History of the United States, he shows that of the six divisions of animals (branches, classes, orders, families, genera, and species), the family is characterized by a resemblance of general form. There is, doubtless, a close analogy in the principles of classification that must be adopted in botany, to those which Agassiz develops for zoölogy. As a general rule, the plants which belong to one family are recognized by a general resemblance of form in the flower, fruit, and seed; while, to distinguish a genus, attention must be paid to detail; and, in the formation of a class, attention must be paid to organization. Hence the family, both in botany and zoölogy, is the most apparent of the higher groups in classification, and the best adapted, by its obvious dependence upon form, to be the starting-point for a child's comparisons. It is not to be brought, as an exception to this remark, that some of the great families contain tribes bearing no obvious resemblance to each other, but rather should this analogy to zoölogy be taken as an evidence of the necessity for elevating some of the sub-families in botany to the rank of families.

The second step, therefore, in botanical instruction should be to add to the name of the plant the name of its family, and a perception of the family likeness; so that the child can say, "This is a hazel; it belongs to the oak family, and shows its likeness to the oak in its catkins of staminate flowers, and in the involucre surrounding the nut; this is an alder, which belongs to the birch family, and shows its relation by having both its pistillate and staminate flowers in scaly catkins, having two or three blossoms under each scale." Of course, the teacher must remember the caution which we uttered, in speaking of chemistry, and not allow the child to think that a few words, such as those here given, can embody all the points of resemblance which characterize a family. Much less should the child be permitted to learn any truth of this kind by rote. Verbal memory has an important place in a true scheme of education, as we shall endeavor to show in our next article. But the very object of introducing geometry, botany, and zoölogy, into our course of studies is defeated, when the pupil is required to commit the words of the text-book, or formulas given by the teacher, to memory. Yet, so accustomed are some teachers to this mode of instruction, so incapable, apparently, of conceiving of any better plan, that we have known a teacher require her pupils to repeat the words of Dr. Gray's "How Plants Grow;" evidently thinking that she was thus using, while she was abusing, that excellent little book.

The book just named may be taken up, as the third step in botanical study, at the age of ten or twelve years. If deferred to a later period the study becomes distasteful, as the habit of observation becomes weaker from the distraction of the mind by other cares. It is easy to give to the child, during the ten years between five and fifteen, a perfect familiarity with three or four hundred species of common plants, such as he meets in every walk. This labor spread over so long a series of years would be by no means onerous; and the names and facts impressed upon the mind in that tender period will never be forgotten. If it be objected that there is no text-book prepared for the use of children too young to use "How Plants Grow," we reply that the plants themselves should be the text-book. The only artificial help in teaching botany to children in the sub-primary school, which, we think, would prove really valuable, would be a series of thirty or forty charts, each containing the illustrations of some one important family, — magnified drawings of the peculiarities in the organs of fructification characterizing each family, — with, perhaps, a drawing of a few of the common species.

Zoölogy is not forced upon the child's attention so frequently as botany in the natural world. Yet, from the motion, and still more from the intelligence, of animals, they are even more interesting to the child than plants. Moreover, although physiology demands a knowledge of chemistry, yet the classification of animals, like that of plants, depends principally upon organic structure, and upon the relation of the creatures to the outward world. The child of five years old is, therefore, interested to notice the difference between animals, and to learn their names. In a country school-house, in the month of May or June, it may be that the songs of thirty or forty different species of birds are heard in the course of a single day. It would be no waste of time, but, on the contrary, a thing of inestimable value, should the teacher enable his pupils to distinguish these birds by their song, learn their appearance and habits, and the families into which they are grouped. The fear is sometimes expressed, by our poets, lest a scientific acquaintance with flowers should destroy their beauty; and lest the song of the bird might have less melody when the songster had been burdened with a barbarous Latin name; but among our acquaintance we have not found these fears realized. On the contrary, a thorough scientific acquaintance with the beautiful objects of nature only increases the pleasure which we take in beholding them. The syntactical parsing and metrical analysis of an ode will not injure our appreciation of its melody and its sentiment, provided the composition has true lyric merit. The beautiful in nature will bear the closest criticism, and the longest investigation, without ever "palling upon the sense." "Nature," says the Concord seer, "never became a toy to a wise spirit." The wisdom and beauty, embodied in each organic work of nature, is "not only vast, but infinite," so that there is no possibility of exhausting it.

The insects in any given country are, at least, as numerous as its plants. The mysteries of insect transformation, the wonderful mechanical instincts that many of them display, the brilliancy of the colors of some, and the pertinacity with which others thrust themselves upon our notice, render insects peculiarly fitted to engage the child's attention, and to serve as a basis for incidental instruction in zoölogy. In this class of animals the orders are more conspicuously distinguished than the families; and it will, perhaps, be best to content one's self, at first, with teaching the child to refer insects to their orders. Insects are so easily preserved in their natural appearance, that we should suppose each school might have a small collection of the most common species to be seen in the neighborhood, grouped in their orders and families, to serve as a reference for any insects which the child might catch and bring in. We are aware of the vastness of the field of zoölogy, and of the impossibility of a child learning to recognize more than a very small proportion of the insects of his neighborhood. Yet, on account of this very magnitude, we would say, let his attention be early directed to this field; so that, if it should prove to be one in which he is peculiarly fitted to labor, he may have the advantage of an early beginning. We would also repeat the caution to be exact in the ideas which are given to the pupil. The main object in these first scientific lessons must be to induce the spirit of exact, patient observation; calling the child's attention to differences as carefully as to likenesses, and to the fact that the likeness in one part does not necessarily imply a likeness in other parts. The foliage of two trees may be almost identical, while the flowers and fruit are exceedingly diverse. While this spirit of patient and exact observation is cultivated, general principles, already discovered by the inductive philosophy, and firmly established, may incidentally be placed before the mind of the pupil, a clear guide to his sense and reason.

Comparative anatomy will thus be naturally begun at an early period. The homology of the parts in vertebrate animals with those of the child's own body will naturally be the subject of continual lessons, and the difference between these or the organs of insects and crustaceans must also be pointed out. Human anatomy and physiology have been introduced into many of the schools of New England during the last fifteen years with very great zeal; they would be much more effective, more interesting, and more valuable, if they were preceded by the lessons concerning which we have now given these brief hints. It is against the course of nature to call the child's attention too early to the functions of its own body. A better result, intellectually and morally, might be attained if the teachers and parents took care of the diet and exercise of the child, his clothing, and the temperature and ventilation of the rooms in which he sleeps and studies, until at least the age of thirteen to fifteen years. The mind would then have been prepared by previous studies for understanding the subject intellectually, while the greater development of the observing powers would prevent the danger of premature and excessive habits of mental introversion. The study of our own bodies approaches nearer to psychology, forming a natural introduction to it, and should, therefore, come last in the studies of Natural History. The study of anatomy and physiology naturally and inevitably leads the child to a psychological investigation into the facts of consciousness involved in the exercise of many of the functions of his own frame. In the tabular view (vol. VI. p. 188) the words Anatomy and Physiology ought to extend into the first years of the high school.

The importance of beginning botany and zoölogy in the very earliest years of school life, as we intended to have placed them in our tabular view, cannot be fully estimated without taking into consideration also their connection with the other branches of education. The habit of constant, attentive observation, surely learned in no other way than through early practice in these sciences, is of immense value in every walk of practical or speculative life. The habits of animals, and the manifestation of their various gifts of instinct and intelligence, are the best stimulants and aids to psychological research, as we intend hereafter to show. So, also, in theology, there is nothing more certainly adapted, in a scheme of intellectual education, to foster reverential views of the being and providence of God, than to observe the lilies of the field how they grow, and to consider how He openeth his hand and satisfieth the desire of every living thing. But this consideration will be brought again into notice when we approach the fifth division of our hierarchy.

In their relation to the mathematical and to the artistic culture of the child botany and zoölogy have also a peculiar value. Leaves and flowers, and insects, are admirable objects, from which the child may make his first attempt at drawing,—and the forms of organic life constitute the most beautiful of the unsolved problems which are now presented to the geometers of our race. The pressed leaves and mounted insects, kept in the school-room as types and standards for botanical and zoölogical reference, may also be used as drawing-patterns of the highest excellence. The insects could not be safely removed from the glass case in which they should be kept; but the pressed leaves, as being more easily replaced, if injured, might be taken to the child's desk, or to the blackboard. Nor is it unworthy of notice that the exercise of recognizing birds by their notes is of great value in the cultivation of a quick and exact musical ear.

Finally, among the prominent advantages of this early introduction of the studies of Natural History, must be placed the fact that it accords with the child's tastes, as well as with the natural order of intellectual development. All children are pleased with crystals, plants, flowers, insects, birds, and beasts, and are interested in intellectual and spiritual truths only when dressed in living figures. By following, therefore, the example of Nature, and speaking in parables to those who cannot understand the truth in other forms, we not only adopt the most successful mode of conveying the truth, but one of the most efficacious of all modes to afford the child the means of present and future happiness.

Of the course of instruction above the primary schools we need not particularly speak, since the general principles are easily applied to the whole course. We should simply say, that, in proportion as the pupil's mind enlarges, the course of physics should deal more with general laws, and less with the details by which those laws are established. This is, of course, on the supposition that the education is designed for the general purposes of liberal culture. Physics and Natural History have been unjustly neglected in many plans of education; but it would, by no means, restore the course of study to a right balance, if, after introducing these sciences in their proper place in the earlier years of school life, we should afterwards allow them to expand and fill the years of the collegiate term, when the student ought to be more fully employed in political, psychological, and theological inquiries. In the grammar and high school, after a proper preparation in the younger grades, we can readily give as much of the mechanical sciences as it is profitable to teach to those who have no special aptitude for the studies. With the preparation now given in the primary and sub-primary schools, this is impossible; and a part of the collegiate course is of necessity occupied in giving instruction in the physical sciences better adapted to children than to youth. The preparation of such excellent text-books as Guyot's Earth and Man, and of Agassiz' and Gould's Zoölogy, is thus rendered a thankless work; these books which are adapted for the widest usefulness, are, by the insufficient preparation of the younger scholars, confined to a few of the more advanced high schools and academies. Changes in the system of public education are usually made with difficulty, and it is, doubtless, well that it is so; since otherwise our schools would suffer, even more than at present, from the eccentricities and errors of those who have control over them. At present the legal guardians of the school, the teachers, the scholars, and the parents, constitute four classes, who resist any change whether for better or for worse. In the changes which we are, in these papers, advocating, the difficulty will be still greater, from the fact that the proposed alterations imply an alteration from the very beginning of the educational course; and our views concerning the high school are perfectly impracticable, unless the children in the high school have been from infancy accustomed to exact observation, rapid and accurate conception, and familiarity with the results of cautious and sound inductive reasoning. So far from this being the case in the ordinary schools, that we may more truly say the child is taught to neglect observation, to abstract his mind from things to books, to repeat words without clear conceptions, to adopt the results of hasty and unsound speculations. If the reader think this language too strong, let him reflect that into not one school in a thousand are crystals, minerals, plants, insects, &c., brought for examination; — let him remember that among the teachers not one in twenty even knows the difference between a moss and a lichen, a bug and a beetle, a moth and a butterfly, and not one in fifty but would reprove a child for bringing such things into the school-room; — let him recall the fact that, in spelling, the child is systematically taught to deny the truth of his own sense of hearing; so that, by the age of fifteen, nine-tenths of our children have begun to hear, in the spelling and in the pronunciation of words, sounds that do not exist, and not to hear sounds that are distinct; — let him remember that in the majority of schools drawing is not taught, and, when taught, it is usually drawing from a copy, so that it feebly exercises the observing powers, or it is inventive drawing, which does not develop the observing powers at all; — let him remember how much time is given to arithmetic, not to counting beans, arranging them in groups, &c.; but to abstract arithmetic, which, even in its so-called practical examples, usually excites the conception only of the names of number, or of the appearance of the Arabic notation; to arithmetic, which was introduced into primary schools only after a long struggle against the tyranny of grammar, and has now become a King Stork more intolerable than the King Log; — let him remember that geography is the only science of observation in our schools, and that geography is often a mere getting of words by rote, and even at best, in the primary schools, only occupied with the observation of maps, instead of the observation of things; — let him remember all this, and he will, at least, see how poorly the primary and sub-primary schools prepare the child for any scientific studies in the grammar and high school.

For this reason, in all these papers, we occupy ourselves more especially in indicating what we conceive to be the true mode and time of beginning each study, and pass by the studies of the high school and college; not that we take less interest in the studies of the more advanced student, but because we are convinced of the absolute necessity of beginning well, if we would produce the highest educational effect. Each day's mental state depends, in part, upon the previous education; and we cannot say how early this process of education begins to influence the mental development. For our part, however, we have long held, what we find to have been the opinion of Comenius (Amer. Journ. of Ed., vol. v., p. 281), that education begins before birth, and is received through the mental and physical condition of the mother.

THE TRUE ORDER OF STUDIES.

(FOURTH ARTICLE.)

BY REV. THOMAS HILL,

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Our third great division of human science includes all that is historical, the record of man's doings and sayings; and we have indicated, in our tabular view, a rough subdivision of this group of sciences into four smaller groups. The first of these smaller groups treats of man's use of nature as commodity; that is, for purposes of agriculture, manufacture, or commerce. The second embraces the fine arts; the third, language,—the use of speech or writing to express thought. The fourth treats of social life, custom, and law. The reasons for this subdivision, and for the order in which the groups are arranged, will be evident on a moment's thought. The use of the world for our bodily needs is first in the order of time and of simplicity; and the earliest knowledge that a child has of the works of man, as distinguished from the works of nature, consists in knowing that man puts nature to use. It is true, however, that this precedence in knowledge is more logical than chronological, since only a few months pass over a child's head before it uses dolls and pictures as naturally as food and clothing; showing how early the artistic use of nature is begun.

The invention and use of language must certainly be subsequent to the use of material things; and the ability to communicate ideas by language must precede any attempt at social law or order.

Without historical knowledge, a child would grow up a barbarian. The chief distinction of an educated man, or of a civilized nation, consists in a knowledge of the wisdom gained through the experience of previous generations. A child is, however, usually suffered to learn the history of manufactures, commerce, and agriculture, without distinct instruction. Books of trade and books of commerce for children's use have never enjoyed a wide popularity, although recommended by many of the best writers on education. The great obstacle to the teaching of any historical branch consists in the multiplicity of details which it involves. General principles are with difficulty applied to bring the numerous facts connected with agriculture, manufactures, and commerce, into a form adapted for the instruction of children. Much must be done incidentally, and education in this respect will therefore depend upon the family as much as upon the school. A very young child will be interested and benefited by being taught the simplest processes of planting and sowing, and of tending the growing plants. If in the city, it may be necessary to do this by description; if in the country, it should of course be done experimentally. Every one of the articles in household use should furnish lessons concerning the mode in which the raw material is rendered subservient to man's needs. The whole processes of grinding and bolting wheat; of fermenting and baking bread; of planting, tending, gathering, cleaning, carding, spinning, weaving, bleaching, dyeing or printing cotton; of tending sheep; of shearing and cleansing wool; of spinning, dyeing, and weaving yarn into the various kinds of carpeting; of tanning leather, and making boots and shoes; of the manufacture of glass; of digging and smelting ores, and working metals, — in short, of producing from the raw materials any of those articles of manufacture which the child daily sees and handles,— will furnish subjects for valuable and interesting lessons. If the parent or the school-teacher is ignorant concerning them, the requisite information may readily be obtained from books like the Penny Encyclopedia, or smaller volumes prepared expressly for the young. Undoubtedly the best mode of instructing a child, concerning any of the operations in the useful arts, is to allow him to see the process going on; and, whenever it is practicable, this course should be adopted. It is not, however, always agreeable to a manufacturer to be interrupted by visitors, and in some places it would be dangerous to allow children to pass among machinery arranged with a view to work, and not to show. But advantage should be taken of those places where work can be seen without interruption to the workmen, and especially of industrial exhibitions and mechanics' fairs.

Beside the enlargement of mind, the extension of the circle of ideas, the increase of his power of conception, which a child may gain from the examination of agricultural tools and labor-saving machinery, he will be likely to choose his occupation in life more intelligently, and with a more just reference to his own powers. The attraction which plays so large a part in the theory of the socialists cannot have fair play, and bring a child into his appropriate sphere of labor, if this opportunity is not furnished of determining towards what sphere he is most strongly drawn. A history of inventions, books containing the first rudiments of agriculture, books somewhat like Babbage's Economy of Manufactures, but treating also of carpentry and ship-building, and one on commerce, ought to make part of the child's reading. No reading-books with which we are acquainted give a complete view of these subjects, in a form adapted for school use; but we have found Miss Edgeworth's "Harry and Lucy" answer tolerably well.

The moment that man's bodily needs are satisfied he expresses his feelings in art. Music and dancing, sculpture and painting, are as natural as eating and drinking. The child of a year old makes anything into a doll, and recognizes in the rudest picture the designed resemblance. At three years old it is frequently able to sing; occasionally much earlier than that. Nature thus bids us begin early the instruction of the child in these departments. A slate and pencil should be among the first playthings put into the child's hands. Holbrook's Outlines, or similar simple copies for imitation, may be among the earliest lessons; but it is of the greatest importance that the child should at once begin also to draw from natural objects. A fresh green leaf, or a simple flower, may be drawn by a very young child, as easily from the living specimen as from a printed wood-cut, and will stimulate his powers of observation and conception to vastly higher activity; giving him thereby not only more pleasure, but a much greater increase of power. The inventive drawing taught by Professor Whittaker will be of much greater advantage to the pupil if it be preceded by an accurate copying from nature. Drawing from nature leads to accuracy and closeness of observation, and to correctness of conception, which are of the greatest use in drawing from imagination. But inventive drawing, when not preceded by the practice of copying natural objects, would conduce very feebly towards the attaining of either the habit of accurate observation, or of graceful and beautiful creations. The two modes of drawing are complementary to each other; and the inventive drawing, or creation of ideal forms, is certainly the highest. But, on that very account, because it is the highest, it should come latest; and the practice of many school-teachers of introducing it first is subversive of natural order.

The real order of procedure in art is more universally observed in music, in which airs are learned by imitation, and the child is never required to extemporize melodies. Singing has been introduced very extensively into public schools, and the instruction almost invariably is begun by simply teaching the children to sing melodies by ear. In schools of a higher grade they are taught to read the ordinary musical notation, and are initiated into the mysteries of transposition, which involves a slight knowledge of thorough bass. We think that in high schools and colleges the knowledge of music might be extended further into the rules of composition, both as regards harmony and musical form, and that the pupil should be required to compose melodies, and harmonize them. They would be worthless to others• but the attempt to write them would greatly increase the scholar's enjoyment of music.

The most extensive and important group of the historical sciences is included under the name of languages. Logically this follows the study of labor and of art; we must know things before we can talk about them; and, logically, language precedes law; we must communicate our ideas before we can enforce them. But, practically, the study of language begins at the hour of birth; and when the child enters school he already talks fluently. The first point of instruction in school will naturally be to teach him to read and write the language which he has learned to speak. And, since we are talking of those who use alphabetic writing, the first step in this process naturally should be to teach the child to analyze his spoken words into their phonetic elements. This ought indeed to have been done at home; nothing will so surely and so rapidly teach a child the correct enunciation of words, as teaching it, in its earliest efforts at speech, to enunciate, as an infantile amusement, the separate elements of spoken language. But, as this is not usually done at home, it devolves upon the teacher, as the first labor when the child enters school. As the pupil learns to distinguish the elements of speech, and to form them distinctly, separate from words, he should be taught the alphabetic signs which represent them; not giving them the names by which they are commonly designated, but, at first, teaching them as the symbols of the sounds. For instance, the word *aitch* should not be taught to the child until he is perfectly familiar with the fact that the character *h* signifies a roughness of breathing, while the mouth is in the position for sounding any vowel. Unfortunately, our English alphabet contains but twenty-six letters, three of which, *c*, *q*, and *x*, are superfluous; leaving only twenty-three symbols by which to represent forty or more sounds. Moreover, in our ordinary spelling, we are not content with being thus obliged to represent at least seventeen sounds by symbols already appropriated to some other sound; we also represent a single sound by many different symbols, and our language, instead of being alphabetic, is, in the ordinary orthography, logographic. A child cannot, therefore, be taught to read ordinary English printing in any natural and easy way. A tough constitution resists a great deal of hardship and abuse; and a vigorous intellect frequently survives the labor of learning to spell in the ordinary mode. A man who has lived through a course of bad diet, and inattention to the laws of health, is apt to regard attention to such matters as a mark of effeminacy; and, in like manner, those whose love of literature has not been absolutely quenched, and whose power to see truth has not been wholly blinded, by the ordinary mode of learning to read, suppose that there is no urgent need for improvements; but whoever will reflect upon the absurdities of English orthography, and upon the gravity with which those absurdities are usually introduced to the child as reasonable things, must perceive that such instruction has an injurious effect upon the child's mental powers, and upon his love of truth. The child may survive it, as he survived the compression of swathing-bands, drenching with herb teas, and drugging with cordials; nay, the injurious effect may, in the case of a very vigorous mind, be infinitesimal; but it is always pernicious, and, in the case of persons of small intellectual ability, disastrous.

The attempt to change the printed forms of the English language, for the ordinary purposes of books and newspapers, may be impracticable; and it may not even be desirable that such attempts should succeed; but the use of phonetic books for the purpose of teaching children to read, is both practicable and in the highest degree useful. So soon as the child has learned to read fluently in phonotype, it may take up common print, and read it easily from the general resemblance of the words on one page to those on the other; as has been proved experimentally in thousands of cases. The child thus taught to read common print, has its orthography more firmly fixed in his memory, because he perceives more clearly its oddities and anomalies. Bad spelling usually arises from an attempt to spell phonetically with the common alphabet; but this would be less likely to be done by one who had been accustomed to associate the idea of phonetic value only with a different alphabet. The use of a phonotype, for teaching a child to read, has also the advantage of giving unceasing instruction in accuracy of enunciation, and no other method has been so successful in removing from a school provincialisms and vulgarities of pronunciation. For fixing the orthography of words in the memory, no practice is more useful than that of writing from dictation; but this means, of course, cannot be applied at a very early age. If we had phonotype in common use, it would be well to have the child taught to write at the same time that he is taught to read; but, with our present "heterotypy" (as it has been facetiously called), we must be content to begin writing at the time of transition from phonotypy, when the progress in reading will of course be much more rapid than in writing.

The approach to ordinary orthography, through phonetic type, leads very naturally to etymological considerations, which will be of interest and value to a child several years before he is ready for questions of syntax. Words themselves must be understood before they can be intelligently classified. When a word is introduced to the child, in its orthographic dress, and he laughs, as well he may, at the oddity of its costume, we may tell him of its gradual growth into its present form, and show him how the silent, or the mispronounced, letters in it are the record of its ancient pronunciation, or of its derivation, or of an early error in its supposed derivation. This will lead us to explain to the pupil the conventional element in language; that usage is the right and rule of speaking; and then we may go further back, and show how much is really natural in the origin of language, and how the meaning of words sometimes sprang from an imitation of sounds, from the musical expression of speech, and from instinctive attempts at expression through the position of the organs of speech. A child of six years old will recognize the nasal element in the *meaning* of such words as snail, snake, snap, snare, snarl, sneak, sneer, sneeze, snicker, sniff, snipe, snivel, snooze, snore, snort, snout, snub, snuff, snuffle, and see how easily the word nose can be introduced into the definition of each. Then it will be interested to know that the Latins also called the nose *nasus.*

The forms, even, of the individual letters may be made the occasion of pleasant lessons in the origin of written language,—the probable development of Shemitic alphabets from phonetic hieroglyphics, and of the European alphabets from those of Phœnicia. If such instructions do not awaken a scholarly turn of mind, and lead to literary taste, they will at least relieve the dryness of the spelling-book, and give the child some glimpse of the numerous and subtle ties which bind us with all the generations which have preceded us.

The use of language is to be acquired at first by imitation. The study of books on grammar and composition does not belong to the early years of life, and it is a complete inversion of the natural method to give a child abstract themes for composition before he is old enough to think on such themes of his own accord. In the like manner, it is not in the true course of nature to teach a child to declaim before he can comprehend the pieces selected for declamation. The most instructive reading for a person of any age is that whose tone of thought is above his average thought, and yet not beyond his grasp; and the best exercise for a child, in learning to think and to express his thought, is to commit to memory such poetry or prose as is worth being treasured up forever in remembrance, but which is not entirely above his comprehension. Let him also, with the book before him, extemporaneously, turn good verse into good prose, and repeat the process so frequently as to be able to do it without hesitation. Before the child can write well he can dictate a narrative of some real event in his own experience; and, as soon as he can write, he should be accustomed to writing, at first narrative, afterward gradually coming to more abstract forms of composition, but always upon subjects with which he is familiar.

When foreign tongues are taught,— and every liberally educated person should at least have a sufficient acquaintance with them to develop his philological tastes, if he have any,— the method of nature, it seems to us, requires a blending of several modes of study. The pronunciation should be a matter of first importance; the student deciding, in the case of a dead language, on some fixed principles, and, in the case of a living language, getting as nearly as possible to actual present usage of the best speakers. Next comes the translating, and finally the grammar. The interval of time between these is not of importance; but it is of importance, in the study of any language, to read more than the small portion which you may daily analyze critically with grammar and dictionary. Let neither mode of study be neglected; a portion in one book being thoroughly studied each day; while, in some other book, several pages are rapidly and imperfectly read. The words and constructions of most frequent occurrence will thus become familiar by repetition, and to the discipline of the exact critical study of sentences will be added that appreciation of the general spirit of a language which can be attained only from a more rapid and extensive reading of its best writers. Thus, in music, also, the best culture is gained when the pupil is daily drilled to extreme accuracy in the practice of select pieces, and also daily exercised in reading at sight several pages of new music. In the order of nature the child hears language and music long before it has the power to analyze and study them; and, in the order of study, it is better to have reading precede, in some degree at least, a critical and thorough study.

When translating from a foreign tongue into our own, there are two extremes in method, both of which are admirable, while the mean between them is worthless. In the study of a language you have two objects in view,— one to learn that language, and the other to gain from the study a strength and facility in the use of your own. Now, in learning the foreign tongue, one cannot translate too literally, keeping to the order and construction of the original; while, for the purpose of culture in the use of the vernacular, and indeed for understanding, in the earlier stages of study, the real thoughts of the author, one cannot be too careful to translate into the most appropriate and idiomatic English. We would, therefore, habitually accustom the student to a double rendering, first literally, then idiomatically; and in the literal rendering allow even etymological fidelity to the prefixes and parts of a compound word. Thus the proverb, *Unkraut vergeht nicht*, may have the double rendering, *An un-plant thoroughly-goes not;* that is, Weeds never die out. The habit of literal rendering may be dropped as soon as the student has acquired the power of reading and understanding the foreign language without a mental transposition into the vernacular idiom; but the habit of correct rendering into easy and idiomatic English must be cultivated carefully as long as the study of the language is pursued; — the first is for a temporary use; the second for a permanent possession. Next to the ability to act well must be placed the ability to speak well,— and indeed, so interwoven are the functions of the human being, that the ability to express thought increases the ability to think, and the power to think increases the power to act. The common opinion, that the development of one power is at the expense of another, arises from the fact that the developed power is usually one that was by natural gift predominant; and the power that has dwindled, at first naturally feeble, has not had sufficient exercise to keep it of its original strength.

The brief limits to which we are compelled to compress these papers force us to give them a fragmentary character, and to leave each branch of the subject but partially developed; hoping that the connection and unity of the parts will be apparent to the reader who carries in his mind the general principles announced in our first article; and that such readers may find here hints that shall lead them, in the course of their own thoughts, to new confirmations of the general truth and utility of these views, and to new applications of them to special points in education.

The fourth general group of studies, included in our great division of history, we have designated in our tabular view by the word law. Man is not content with thinking and expressing his thoughts, with subduing outward nature to his needs, and making it subservient to his purposes; he also seeks to govern his fellow-men. The child is born subject to his parents, and the family government has always been a type, perhaps suggesting and leading to the government of tribes and nations. At all events, there are no men to be found without some traces of government, and, in all civilized countries, there has been developed the idea of impersonal law, in the organization of a community whose associated wisdom shall decide upon what is right, and what is for the best interests of the whole; whose associated power shall enforce the right and develop the good, as far as the limits of its ability extend. The historical study of these relations of men to each other is necessary, not only to a full development of the student's mental powers, but as a preparation by which he is fitted for an intelligent participation in the rights and duties of those relations.

The method of nature is here evident, that the child is born into the family, and learns, by subjection to his parents, the duty of subjection to all just authority, before he can understand the ground on which the authority rests. He is brought under the order and discipline of the family, before he can rise to the comprehension of that vast scheme of universal order, planned by Infinite Wisdom, in obedience to the impulses of Unfathomable Love, and carried into execution by Almighty Power,—that Universal Order after which all wise legislation strives, according to which all just judicial decisions are framed, and which all righteous executive power seeks to embody.

So, in the school, the first and most important ideas of law come not from histories and constitutions, nor from political orations, read or studied by the child, but from the wise and just discipline of the school-room, from the rules of play observed in the games among his school-fellows, and from the perception that the parents and the teachers are also subject, even in school matters, to the laws of the commonwealth and to the votes of the town. The judicious teacher, by occasional words, rightly directing the child's attention for a moment to such themes, gives what we have called incidental instruction in politics and law. The next step, in this branch of study, is history in the ordinary sense of the word. Afterwards, in the higher school or college, the pupil should take a brief course of study in constitutional law, commentaries on the constitution of his own state, of the United States, and of Great Britain, comparing them with those of Greece and Rome, and of the Hebrew Commonwealth.

It was our original purpose, in commencing these papers, to have continued them so as to embrace remarks on psychological and theological studies; but, as circumstances have compelled us to defer the remaining papers to an indefinite period, we will append here some general cautions to the reader, which we had proposed to leave to the end. A recent very friendly criticism on our views shows a misapprehension of them, by saying that we have placed the studies of the encyclopedia in a right line, instead of in a circle, and that we have provided only for the education of the knowing faculties, without providing for the education of the powers of expression and action, and of the feelings and sentiments.

Let the teacher, who is really desirous of knowing the true plan of education, remember that the body and its organs need training and care for their preservation and full development; that the sentiments and passions need to be judiciously called into play, and guided in their direction; that, above all, promptness and efficiency of action, and perseverance of purpose, are to be cultivated with great care, under a consecration to the love of God, and charity to men. In our scheme of studies we are showing what we consider the natural order of intellectual growth, and the following of this order will simply give the best opportunities for the other kinds of education. Thus intellectually we place the cultivation of the powers of observation first in the scale, preceding that of the inventive and of the reasoning powers. This intellectual order of nature gives the opportunity, in physical education, of keeping the young child out of doors, rambling, under the guidance of its teacher, by the roadside, or over the pastures, to the benefit of its body as much as of its mind. The same intellectual order gives, in moral education, the opportunity for developing pure tastes, the love of natural beauty, and affording social pleasures of a higher character than in the ordinary plays of the school-yard. It gives also the best opportunity for impressing the young heart with the infinite wisdom and love manifested in the creation; and the freedom of the walk allows the opportunity for the child to manifest its own choice and will in showing kindness to its playmates according to the command of the Heavenly Father. In like manner, the whole arrangement of the intellectual problems placed before the human spirit would be found, if we understood it in its natural order, to be adapted for the appropriate furtherance, at the proper age, of each part of physical, moral, and religious education.

The complaint which has been made, that an intellectual education is of no moral benefit, but rather a moral injury, so far as it is well grounded, is grounded as much upon the fact that our intellectual drilling has been inverted in its order, crippling rather than cultivating the powers of observation, as upon the fact that the attention given to intellectual education has withdrawn the attention from moral training. This idea appears to have been one of the moving springs in the heart of the late lamented Josiah Holbrook. In like manner, the injury done to the bodily health of children, by overstudy, comes as much from the unnatural inversion of studies, the giving of that which is abstract before that which is concrete, as from the absolute amount of time spent by the children in close attention to the subjects set before them. Whatever be the amount of knowledge acquired in a given time, the ease of its acquisition will, evidently, be partly proportional to the lucidness and naturalness of the order in which it was acquired. The purely intellectual question of the true order of studies is, therefore, intimately connected, in more than one mode, with the question of moral and physical training, with the whole question of the highest welfare of the individual and of the family, the state, and the church.

Nor, in either physical, intellectual, moral or religious education, should we forget the artistic side; — that is to say, we must remember that skill in expression or action is as desirable as simple power. A man not only needs power, but needs it under control, else it loses its worth. Of how little avail would physical strength and health be to a man who could neither walk well nor swim well, who was at ease neither on the rower's seat nor in the saddle, who could neither drive nor skate, who could neither mow nor dig, but who, in all manly sports and in all useful labors, found himself strong indeed, but clumsy, and inefficient for lack of skill. In like manner, he would feel humbled and awkward indeed, who was conscious of great thoughts, and of deep emotions, and of a strong purpose to do right, and was nevertheless unable to express himself either by spoken or written words, by chisel or pencil, or by musical tones, or by well-planned and well-timed deeds.

While all studies must be used as means of developing and guiding some power of action and expression, as well as of understanding, it is perhaps the especial function of the historic studies, of trade, art, language and law, to cultivate the powers of expression; and the teacher must remember to apply them in such manner as to produce this end. As the bread of the mind is truth, so the bread of the moral nature is action, or expression, and the pupil must be drawn out into expression, not made the mere recipient of instruction.

To pass to the other point in which we would caution the reader against a misapprehension of our views, it does not follow, because we have arranged the five branches of the hierarchy in a certain logical order, with Mathematics at one end and Theology at the other, that this order is to be followed in arranging successive years of school life. It would better apply to the minutes. The order is that of logical development, that in which the subjects are to be successively unfolded to their fullest extent; but it would be absurd to postpone physical teaching entirely until a full knowledge of mathematics had been obtained, and so of any other branches. We may perhaps compare the course of education to the phyllotactic spiral on a two-fifths arrangement. The mathematics are the row of leaves on which the zero leaf is to be taken, and you cannot rise to a higher point in your mathematics, except by running round through the other four rows. For the full, harmonious development of the child's mind we need a perpetual recurrence to the five essential branches of inquiry suggested by every sight of nature. The youngest child in the school brings in, perhaps, a dandelion. What is its form, and the number of its rays? These questions belong to mathematics. What is its color, taste and smell, its medicinal effects, its relations to the sunflower and other composite plants? — these are questions of physics. The derivation of its name, dandelion, — dents de lion, dens leonis, — from the form of the leaf, and of the generic name, taraxacum, from its medical effect; the fact of its introduction from Europe; the quotation of the lines, —

"Dear common flower, that grow'st beside the way,
Fringing the dusty road with harmless gold;" —

these would be historical instructions from the same simple flower. Then ask the child to tell you why he likes this flower so much; whether it is because it is prettier than morning-glories, or because it comes so early, or because it is so common, — and you stimulate him, perhaps, to one of his earliest efforts at a psychological self-examination. Finally, speak to him, reverently and warmly, of the goodness of the Heavenly Father, who has spread beauty with so unsparing a hand before us, and tell him of the Saviour's appeal to our conscience, drawn from the beauty of the lily, using simple language that he can understand, — and you will have given him theological lessons also.

Now, every lesson in the school of life will lead, as simply as this dandelion has done, to the five great branches of intellectual studies; and no lesson has been fully taught until it has thus been linked into relation with all the main lines of dependent truth. The simplest geometry has its application to physics, its history of discovery and application, its psychological questions of the foundations of belief and the nature of proof, and its theological aspect, in such queries as whether the relations of space are or are not dependent on the constitution of our minds, and thus on the will of the Creator. The cycle of these five branches must be daily recurring, and our aim has been, in these articles, to show in what order the five branches are to be placed, which must always precede the others, which must first receive full development, and which, the crown and glory of the whole, must be always least within the reach of finite faculties.

LETTERS TO A YOUNG TEACHER.

BY GIDEON F. THAYER, A. M.,

PRINCIPAL OF CHAUNCEY HALL SCHOOL, BOSTON, FROM 1828 TO 1856.

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LETTER I.

INTRODUCTION.

Mr. Editor:—In quitting the position of a teacher, which I have occupied for over forty years, I find myself not wholly free from the feelings that induced the veteran retiring tallow chandler to solicit the privilege from his successor, of being allowed on *dipping days*, to go into the shop and lend a hand in the prosecution of his long accustomed craft. But presuming that such an arrangement might not be satisfactory to *my* successors in the school-room, I ask the privilege of contributing some of my notions on the subject of *school-keeping*, to the pages of your Journal.

I claim little originality of method in the processes I adopted, or in the details of my routine of labor, which the ardent and conscientious teacher would not, as a general thing, find to result from a long course of determined efforts in the management and instruction of a large school. Still, my younger brethren, however gifted by nature, and improved by education and the study of books, and even with the advantages which result from the Normal School—that blessed institution of modern days—an institution whose aid every individual, male or female, who intends to become a teacher, should if possible secure, cannot reasonably be supposed to anticipate all the variety of mental machinery which it is necessary to put in operation, to secure the results at which the educator should aim, in adopting as his regular vocation, this important department of human labor. He may have a love for imparting knowledge; he may be ambitious of writing his name on the roll of fame, side by side with those who by the common consent of civilized man, have made the world their debtors, by their successful efforts for the improvement of the race. Still, something more is requisite—is indispensable to the complete success at which every teacher should aim—should resolve on at the outset of his course.

It would be almost unpardonable, at this period of the world's history, to attempt to show the necessity of education, the value of knowledge, the worth of sound principle, the advantages of self-control, the heaven-described requisition of "purity in the inward parts;" and all those subjects connected with the intellectual, moral, and social nature of man, which so properly enter into the school training of the youth of our country at the present time. This, therefore, is taken for granted; but, is it equally obvious that the young teacher has adopted this sentiment? Has made it the very basis of his action in the school-room? Has settled it in his resolution or purpose, that all these things are to be indissolutely connected with his plan of action? If he has not done this, his programme is essentially defective; and, if he has, the probability is that he will be aided to no inconsiderable extent, in the pursuit of his object, by the suggestions that experience may make, thus sparing him many a toilsome year of experiment, and saving his pupils from the disadvantages of inevitable failures, and, perhaps, from the infliction of unintentional injustice at his hands.

With these views, and for the satisfaction of still doing something in the way of instructing the race,—when I shall no longer be, Sir Walter Scott's "tyrant of childhood,"—I propose, by your permission, Mr. Editor, to furnish a few letters for successive numbers of your periodical, addressed to a young teacher, in the hope of aiding, indirectly, the youth of our country in their efforts to become what that country has a right to hope and expect from them, when they shall enter on the duties of adult life, and, in their turn, help to shape the destinies of their native land, and of the world.

LETTER II.

SELF-EXAMINATION AND SELF-DISCIPLINE.

HAVING, in my opening letter, very briefly touched upon the general subject of school-keeping, I propose now to indicate more particularly what steps are to be taken to secure success in the objects at which you will aim. And, in my view, self-examination, self-discipline, self-government, self-renunciation, to a great extent, comprise the most obvious and certain means at your command. These will do more to promote the successful management of your school, than any set of rules, however well conceived or rigidly enforced.

To ascertain and explore the springs of action in one's own mind, is to obtain possession of the key that will unlock the minds of others; than which nothing is more important in the business you have undertaken; and nothing will give more effectual control over those intrusted to your care. And, as this is a leading object with the teacher, and one on which his usefulness mainly depends, it should be, first of all, secured. There are ten persons who fail in school-government, to one who fails in mere instruction. The extent of classical and scientific preparation is of little moment, where the capacity for government is deficient.

Self-examination, if faithfully carried out, will unfold to you natural biases and motives, of which you may now be wholly unaware. You may have been drifting forward on the stream of life, like a deserted ship on the bosom of a mighty river, heedless of your course, and trusting that the right haven would be found at last, without any special agency on your part to avoid the shoals and whirlpools, the obstructions and rocks, that lie exposed or hidden before you. You feel no "compunctious visitings" at this state of things; for you have never been roused to their contemplation. Your attention has never been called to an investigation of those ruling influences which, unknown to yourself, have hitherto led you onward in time's pathway.

You have felt no responsibility, for you have acted for yourself alone; and being, as you supposed, an exemplar or model to no other, have made no effort to alter your course.

The case is now wholly changed. What you are in motive, principle, habit, manners, will the pupils under your charge, to a greater or less degree, become. There may be points exhibited by you before your school, which in *word* you steadily condemn; but powerless and ineffective will be that precept which your example opposes with its living force. Hence the necessity of this personal inspection. "Know thyself" was the injunction of an ancient philosopher; and it has been reiterated by many among the wise of modern days.

Most of those traits which make up what we call character in a man, are the results of education as developed not only by the processes of school instruction, but by whatever passes before the eye, whatever sounds upon the ear, excites the imagination, warms the heart, or moves the various passions within us; and the more frequently the mind falls under the same set of influences, the greater the probability that the character will take a stamp conformably to such influences. Hence we perceive, although with some exceptions, a marked similarity in individuals of the same parentage. But there are traits inherent in the human constitution, and widely differing from each other, as strongly marked as the instincts of animals, which lead one species to seek the air, and another the water, without any teaching whatever.

The man of nervous temperament will exhibit conduct conformable to it; the phlegmatic, to it. The acquisitive tendency produces the avaricious man; the taciturn, the silent man. Although the operations of these original elements in our species can, perhaps, never be entirely reversed, they may, under faithful training, be so qualified as to make them subserve the cause of duty and humanity; for we are never to admit that the great Creator made anything but for the promotion of the ultimate well-being of his creatures. As, on the completion of his six days' work, he saw that "it was very good," we are bound to believe that every element in man's nature, whether physical, moral, social, or intellectual, was intended to become the instrument of good in some department of the great system of things, however perversion or excessive indulgence may sometimes produce the very opposite effects. To say otherwise, would be like asserting that light is no blessing, because it may dazzle or blind the eye; or that fire is a curse, because it sometimes consumes our dwellings or destroys our treasures; or that water is our foe, because it may drown us.

It being established, then, that ours is a complex nature and that, without an adequate knowledge of it, as existing in ourselves individually, we cannot do all in our sphere, of which we are capable, for the benefit of our fellow-beings, the acquisition of this knowledge becomes our first duty; and, especially, when we put ourselves in a position to stamp an image of our spiritual selves upon those who are committed to our influence and our training.

Our first care, then, in this business of self-inspection, is to ascertain whether we have any tendencies or proclivities that militate with our highest idea of a perfect man; whether our motives are lofty, our affections holy, our principles upright, our feelings and tastes pure, our intentions unselfish, our habits such as they should be. Every one has a beau ideal in his own mind; and, if we fall below it in any of these particulars, we are to set about bringing ourselves up to the standard we have assumed.

In this great work we shall need aid beyond ourselves. In fact, self-love will be continually blinding us, or leading us astray from a strict and righteous judgment; and, to enable us to be just, we must as constantly seek for aid where only it is to be found.

Having, then, ascertained the defects in our character, our next step is to impose that self-discipline which reformation requires. It may be difficult,—it doubtless will be; but the result will be worth more than its cost. The work must be commenced in strong faith, with an unyielding will; and a resolute perseverance will achieve the victory.

Have you doubts as to how you shall begin upon the new course? Phrenology teaches that every organ has one antagonistic to it; and that by exercising it, and suffering its opposite to lie dormant, the former will enlarge, and the latter shrivel for want of exercise. Take a hint from this. Have you discovered that your motives centre in self? Seek every opportunity for benefiting others, even at some personal sacrifice. Have you found yourself indulging in any passion? Cultivate a feeling of gentleness and forbearance. Put yourself in the way of meeting provocation, that you may learn, by practical experience, to resist the temptation to the evil. Have you detected a love of ease, or of inaction, or indolence? Nerve yourself to a vigorous attack upon the propensity or *habit*, if it has already become such, assured that, if continued, it will prove fatal to every noble purpose. Have you accustomed yourself to speak ill of others, or encouraged slander or gossip in your associates? Resolve to check it where you can, whether in the domestic circle, or abroad among strangers; and resolve, as a *general* rule, to be silent where you cannot commend. If others are unjust to you, be forgiving and generous to them. If the cost or inconvenience be great, the discipline will be all the better and more useful. It is by such trials that the character is to be improved and perfected. It was not sleeping on beds of down that prepared the men of '76 to endure the unutterable hardships of those days; but a long and severe training in the rigorous school of adversity and self-denial. It is the wielding of the heavy sledge that imparts vigor to the arm of the smith; while the same brawny limb, confined in a sling, would soon wither into imbecility.

Thus, then, are you to treat propensities and habits, and every sin or defect, which you find besetting you or opposing your progress towards the standard you have set up for your own attainment.

A discipline like this terminates at last in that self-conquest so important in every situation of life, and is of unspeakable advantage to him who is the guide of the young in the beginning of their career.

The importance of self-government has been proverbial from the days of Solomon. It enables its possessor to make the best use of his powers under any circumstances that may arise. It decides the contest between two individuals, in other respects equal, declaring for him "who ruleth his own spirit." Nay, it comes, in lieu of intellectual power, in the dispute, and secures the victory to him who is in other respects the weaker man. It is highly useful in every sphere; and, in that of the teacher, is in requisition every hour of every day.

The last of these elements of preparation is self-renunciation, or self-sacrifice, a state of mind the most difficult to reach, and yet the noblest of all; for it was the leading characteristic in the Great Teacher—the purest, safest model for every other teacher.

You will, very naturally, in the outset of your pedagogical course, feel jealous of your authority and dignity, and require a deference and respect from your pupils, which, if withheld or rendered tardily, you may be disposed to resent or make the occasion of severe discipline to the offender. It is fitting that this point should not be neglected; but be not hasty to act or to adopt extreme measures in such a case. Assure yourself first that disrespect was *intended.* The low state of manners at this day is notorious. In many families, of good standing in the world, it is a subject that scarcely comes within the cognizance, or, apparently, the thought of parents. The children are not trained to observe the courtesies of civilized society, but actually grow up like the untutored savage of our western wilds. If any refinement exists around them, they are somewhat affected by it; but they do and speak as others—leading individuals in the families—do. Hence, many a noble-spirited boy enters the school-room practically unconscious of the claims of the teacher to any token of respect from him, that had never been required around the hearth-stone of his own home. Consequently, his manner may be rough, his tones loud and coarse, his language ill-chosen, his carriage clownish, even on his first introduction to the teacher. Should such a one come under your observation, judge him not hastily; check him not harshly. There may lie within that repulsive exterior the best elements of our nature; and he may be wholly unconscious that he has infringed any of the laws of civility. Ascertain, therefore, the facts in the case, before you arraign him for his delinquency.

Every variety of temperament, too, may be found among your pupils. The merry, the daring, the timid, the artful; one, so overrunning with fun and frolic, that he commits many a breach of good manners quite involuntarily; another, easily excited by passion, answers rudely, under its impulse, when, in his sober judgment, he would stand self-condemned, although his pride might forbid his acknowledging his fault.

Cases will be continually occurring to test the principle of self-sacrifice within you; and well will it be for your own happiness, and better still for your pupils, if you shall have so firmly established it, as to enable you to endure from them, for a time, what you would, perhaps, be disposed, if coming from others, to consider an insult.

But do not misunderstand me. I would have your pupils behave with strict propriety; would have you enforce it as a rule. My object in these remarks is to guard against precipitate action; nay, to prepare you to carry the martyr-spirit into your government, when the welfare of the children shall require it. The mother sometimes comes to her knees before her offending child. The spirit that dictates such an act should move the teacher in cases demanding it. Cases so extreme would rarely occur in school; but when they do happen, he should be prepared to meet them in this *maternal* spirit.

When the first Napoleon had an object to gain, whether it was the carrying of a bridge, the taking of a city, or the subduing of a kingdom, difficulties did not daunt him, nor the cost in men or treasure cause him to waver in his purpose. The only question was, "how many men will it cost?" and they were detached for the service. With a similar determination, but for a far nobler end, the teacher is to ask himself, "what amount of labor, what degree of personal sacrifice, will it require of me to save this child?" The question being solved, the generous effort is, with Bonapartean promptness, to be commenced. The debasing passion is subdued; the repulsive habit reformed; the evil tendency put in check,—and the boy is redeemed!

Do you ask me if *this* is the preparation for keeping school? I answer, the course I have recommended comprises the initiatory steps. They are the most necessary ones of all; first, because they involve the highest good of a human being; and, secondly, because they come not within the scope of the examination of school committees, either at the time the teacher receives his certificate of competency to take charge of a school, or at the public examinations, when he appears before the people, to prove or disprove the accuracy of the committee's written opinion.

I am well aware of the check that this perversion of the relative value of things among School Committees, must have a tendency to impose on the ardor of a young teacher of high aims; and how great the danger to discouragement that he must have to encounter as he anticipates the non-appreciation of his acquirements in his school of self-discipline, among those who are to be his publicly constituted legal advisers or directors. Still, I cannot consent that he should lower his standard. If he adopts the teacher's vocation as a permanent one, these things will be needful to his complete success; and he should be ambitious, for the benefit he may confer on his pupils, as well as for his own fame, to leave such marks of his training and careful instruction on their feelings, habits, and principles, as will show to the good and wise that he measured his duty in the school-room by a standard more lofty, more grand, than that which is satisfied with a moderate acquaintance with grammar, geography, and arithmetic. These in their order. I would not derogate an iota from their true value; but I would have, without any compromise whatever, those things take the first place, on which the character, integrity, moral worth, and that happiness which springs from pure fountains, and which is alone worth striving for, depend.

The teacher who conscientiously believes this, and has made a faithful effort to fit himself to carry out the views presented in this letter, is worthy to mould the rising race,—to fit the embryo men to become voters under a free government, to become legislators capable of making wise laws, and upright magistrates to execute them.

Such teachers the republic emphatically needs. Such must be had, if we would perpetuate the glorious institutions of our Heaven-favored country. Prosperity in commerce, in wealth, in power, in fame, in population, is of little value, if there be not a foundation in something more substantial—more enduring; if, in short, public and private virtue be not the grand basis—" the stability of our land."

The foundation of all practical education must be in the department of morals; and this should be insisted on by all supervisors of schools throughout the land. Teachers should be examined in this as " the principal thing; " and, if found deficient, whatever their attainments in science, should be rejected. It is full time that some practical use should be made of the doctrine assented to by all, that the moral and social nature should be educated; and this can be best secured by engaging the services of persons who have made it a matter of particular attention.

LETTER III.

MANNERS.

BEFORE attempting to illustrate the principles laid down in my May letter, and show their application to the business of the school-room, I will devote one letter mainly to the subject of *manners;* a subject scarcely inferior in importance to that of morals themselves. Morals form the basis of human character; but manners are its decorations, and aids to its developments. Morals are the staple of human laws, the grand regulators (or should be) of human governments; manners are their gildings, which tend to soften their asperities, and win a more ready acquiescence in their observance. Morals are the solid bullion, forming the foundation of the currency of a community; manners, the small notes or coins, ever ready for use, and without which the business intercourse of mankind must cease, or retrograde to the condition of things that existed in the world's infancy. In fine, morals are the sun behind a cloud, which, though giving light to the world, lacks the genial force of its shining face; manners are the agencies that displace the cloud, and reveal the glorious orb in all its original power.

We hence perceive an intimate connection between the two. Neither is complete in itself. One is the complement of the other. They should not be separated. Morals divorced from manners, would be cold and repulsive; united to them, they become attractive and pleasing. While manners, unassociated with morals, degenerate into hypocrisy—furnishing an illustration of the "whited sepulchre" of the New Testament.

Let it be understood, then, that in speaking of manners, civility, courtesy, or politeness,—for I shall use them synonymously,—I allude to them as having a right foundation, and as belonging to moral duty. They give a charm to social intercourse, which nothing else can supply. This is a fact universally admitted; and yet one that seems to be less practised upon, in each succeeding year of our nation's history.

It was once a sufficient guaranty for gentlemanly manners, that the individual had been reared by respectable parents. This is now by no means a conclusive inference. Family training, in many instances,—

perhaps in a majority,—has fallen into disuse; and chance. or the will of the young, has taken its place. The respect always due to parents, to seniors in age, to superiors in station, in wisdom, and virtue, has so nearly died out in this country, as to have undermined the very foundation of that for which I am pleading. For, if from those whose claims are of a paramount nature, the ordinary civilities of refined life are withheld, it is in vain to expect they will be extended to the stranger, encountered in the marts of business, the walks of pleasure, or the rounds of general intercourse.

An apostle, in writing to a young friend, says, in speaking of children, "let them learn to show piety at home,"—meaning *duty to parents, or those in superior relation.* Here, then, *at home*, is where the sentiment is to take root, be nurtured, and made to grow. Its influence will then go forth with the young, controlling their behavior towards others, and checking that rudeness which has become a reproach to our country among the more civilized nations of the earth.

Since, then, this duty has come to be so much neglected by those on whom it naturally devolves, the teacher is to exercise double diligence in its inculcation. And, although it may be very discouraging, especially at the outset of your teaching, to think that you work single-handed, let me entreat you to take courage; to assure you that, in most cases, your efforts will be appreciated and seconded at the homes of the pupils. It is not that fathers and mothers do not *wish* to have their children grow up, adorned with the graces, as well as imbued with the good morals, properly belonging to a Christian community: they are very glad to have this boon bestowed upon them; but the pursuit of business—the accumulation of wealth—engrosses the father's attention, absorbs his time, and leaves him no leisure for the home instruction of his children. The mother may do what she can, but without her husband's coöperation, her best endeavors are often neutralized. When, however, she finds the work begun at school, she is eager in assisting the teacher to carry out his plans. Ascertaining what they are, she strives to enforce them when the children are in her presence, and each aids the other in the good work.

But how are the details in this training to be carried into practice? To answer this, involves numerous particulars. To teach penmanship well, a man must write well himself; to make good readers, he must read well; to make good mathematicians, he must understand well the subject. "As is the teacher, so is the school." The aim and effort of the man, who would impress the stamp of the Christian gentleman upon the manners, habits, and character, of each one of his pupils, must be to *deserve that appellation himself!* In proportion as he merits this, will he succeed in multiplying the copies of so desirable a work.

Let us now ascertain the elements of genuine politeness. The counterfeit we should eschew as we would a spurious bank-note. It can have no connection with morals; and it is politeness, as coadjutor with morals, which it is our purpose to encourage and promote.

Politeness, or good manners, then, we consider as the offspring of benevolence, love, or kindness of heart. Its aim is to make others happy; to smooth down the rough edges and sharp points to be met in our collisions with society, and thus to prevent that friction from human intercourse which is inevitable without the exercise of this meliorating grace. From the uncouth bearing of many individuals, it may be deemed impossible, in their cases, to add or develop this grace; and it is admitted that the task will not be a light one. But there is a germ of the "raw material" in every human soul; and the business of the educator is to unfold, to form, and direct it. This will be difficult or easy, according to the temperament of the respective subjects; but, be assured, it is invariably attainable, although not in equal degrees. Every one may be taught, by proper attention and needful skill, to write well; but no human power can make elegant penmen of all. Some have an innate incapacity for the perfection of the art. So it is with forming the manners. Still, this should furnish no excuse for omitting the attempt. The effort is all the more necessary. When Lowell Mason, nearly thirty years ago, introduced instruction in vocal music into the school with which I was then connected, in trying the voices of the pupils, he discovered that some possessed very limited vocal power—capable of sounding no more than three notes of the scale; but he did not turn them aside, saying, —as had been the practice with his predecessors in teaching the art, —that "they had no voice, and could never make singers;" no; he said, wisely, that they needed instruction and training so much the more, that their natural deficiencies might be, to some extent, counteracted; and the result proved the soundness of his judgment. In six months they had nearly doubled their power, and could sound, some five, some six notes.

Some persons are, apparently, *born* ladies or gentlemen, and require little or no direction from others. Some, with an intuitive faculty of imitation, take on the most agreeable and finished manners, from being surrounded by suitable examples. Others, of an easy and good-natured temperament, float on under its influence, securing the good will of their associates, quite unconsciously and without effort.

But a large majority of children, at the school-going age, are (to borrow Addison's idea) like the marble in the quarry, and need the hand of the polisher to develop their latent capabilities.

Impressed, then, with these truths, I would say to you, my young brother, let the Courtesy of the Heart distinguish your whole deportment—when instructing a class, as well as when in private conversation with their parents or others; at home and abroad; in your own study, and at the public exhibition. Have not one code of manners for the fireside or the school-room, and another for company; excepting in the degrees of deference which different ages and stations demand. These are recognized and claimed by the hand-book of our divine religion. Never lose your self-respect, your good language, your temper, nor your philanthropy. To do either of these would undo the beneficial effect of a long course of verbal instruction.

Many young men, at college and elsewhere, away from the restraining and refining influence of the gentler sex, acquire ungainly habits, which they afterwards continue to practise, perhaps unconsciously, even when they have become teachers,—such as throwing the chair back and causing it to rest on its two hind legs; putting the feet, raised breast-high, on the desk or form in the school-room; cutting and scraping the nails in company, &c., very much to the scandal of the profession, and highly derogatory to the delinquents. I need not say how ill-bred, how disgusting such habits are.

Few persons, of ordinary reflection, need be in doubt on any point of good or ill breeding. When a common instinct or sense of propriety fails to settle the point in your mind, the example of the individual among your acquaintance, of acknowledged taste and refinement, may be relied on as a safe guide.

Although conventional usage fixes a certain standard of civility for its own observance in almost every country, there are certain laws of courtesy, that are universal among civilized nations: one of which is, to avoid doing whatever may offend the taste, delicacy, or feelings, of the company in which we are. Another, to do what will contribute to the happiness, pleasure, or innocent enjoyment of one's associates. A third, to waive, for another's comfort, any little gratification to ourselves. He who is not prepared to adopt, for his own guidance, these fundamental rules of genuine politeness, will fail to rise to any considerable eminence among the truly polite, and must present to others but a poor model for their imitation.

There is a *prestige* in the very bearing of a man of genuine good-breeding, which every one feels on entering his presence. I remember to have heard an illustration of this, many years ago. Governor Everett, of Massachusetts, widely known as an accomplished gentleman, frequently visited a primary school in the city of Boston, when every pupil evinced, by his deportment, that he *felt* the influence of the Governor's courteous manners, even before he spoke; and on one occasion a little pupil said to the teacher, after he had withdrawn, "Miss Brown, I always feel just as if I must keep bowing, when that gentleman comes into school."

It has been said, and often written as a copy-slip, for the last fifty years or more, that "Amiable manners adorn correct morals." And that "A man's manners form his fortune." They do more: before we have ascertained whether a man possess *any* morals or not, his manners have already made an impression on our minds and feelings. Stranger though he be to us, our opinion of him is formed, either of favor, indifference, or dislike. We may do him injustice. He may be repulsive in his exterior, and yet a man of sterling merit; while, on the other hand, with all the graceful externals of a gentleman, he may be a knave. There is no infallible rule in the case. One thing, however, is certain: he is not more likely to be unworthy for being agreeable; and his manners are always considered as a recommendation. They are like well-known coins of acknowledged value, current at every counter; while stern integrity, destitute of external grace, like bills of exchange without an endorser, are slow to be accepted. *Time* usually does all men justice; but before some individuals have, by a long course of good conduct, proved to others their real worth, the tide in their affairs which leads to fortune has begun to ebb, and the flood may not again return.

Further. Good manners are not merely a selfish good: they please and gratify others. They generate confidence and allay irritated feeling. The mother, how ill-regulated soever her own children may be, points to those of her neighbor, who are well-bred, as patterns for their imitation; while the man of self-discipline, struck by their charm, endeavors to reproduce them in his own demeanor.

The manifestations of good manners, in the many trifling particulars which they involve, are so insignificant, individually considered, as to almost forbid their introduction into this letter; but as it may fall under the eye of some of those who are to be *ultimately*, if not *directly*, benefited by the views herein presented, I will venture—though with some misgivings—to present a specimen.

The *bow*, among most of the civilized nations of the world, is a common token of respect and courtesy, although it is sometimes used merely as a sign of recognition among familiar acquaintances. In the rural portions of our own country, it is considered a synonyme for *manners*, in boys, as is courtesy, in girls; and the good dame says to her sons, on the entrance of a visitor, "Make your manners, children." It formerly was, also, a synonyme for *reverence* in the same connection.

It has been spoken of as one of the most potent ceremonies current among men; and truly it may not, in its consequences, be easily overrated. It is an act whose significance every one comprehends, and secures, at sight, the compliment it deserves. Nay, it is not too much to say, that to a well-timed and graceful bow, many a lad has been indebted for his position and distinction among men; and it will ever continue to be so, as long as civility is appreciated by mankind, and this continues to be one of its acknowledged expressions.

Perhaps this is founded on a principle in the human mind, that may be deemed selfish—the bow being a manifestation of respect or courtesy to the individual receiving the salutation; or it may be a feeling of gratification that the youth is thus entering for himself on a course that will conduct him to respectability and honor. Whatever the cause, the effect is certain; and it were to be wished that the efforts of teachers might lead to a more general observance of the practice in question.

Macklin, in his Man of the World, makes Sir Pertinax speak of it as the very pledge of thrift; acknowledging that *his* success in life had been owing, almost exclusively, to the omnipotent "boo," as he gave it. While our own Franklin encourages a similar idea, in his lessons to young men, on success in the world. And Shakspeare, by Hamlet, introduces the same thought in his speech, where he says,

> "And crook the pregnant hinges of the knee,
> Where thrift may follow fawning."

But if it were observed as a hollow ceremony alone, to secure goodwill and lay the foundation of fortune, I should consider it contemptible, and unworthy a young, frank, and generous mind. O, teach not the unsophisticated beings under your care, anything so foreign to the purposes of your holy office!

I wish to speak of it in a simpler and a better sense—merely as an expression of politeness or deference. And, however obsolete it may have become with a portion of our young people, I say, *let it be revived*—especially at school; on entering or leaving, on receiving or giving anything. Let it, also, be observed at home, in the street, in company; wherever, in short, personal communication is held with others, or another, by word or action. To ladies, to teachers, to gentlemen in advanced life, let the hat be lifted wholly from the head; with others, a touching of the hat will suffice, or—if on perfectly familiar terms with the person saluted—the touching of the hat may be omitted.

These distinctions should not be forgotten. A few specimens of the "good old English gentleman" and of the well-bred men of our own country of the Washington stamp, yet survive, who exemplify the grandeur and gracefulness of this style of manners. Would there were more, and that we could arrest the rapid decadence of their practice!

There is no one thing, in itself so trivial, that would tend more powerfully to arrest the tide of rudeness that is sweeping over our land, and carrying our character for respectability away with it, than the reëstablishment of this ancient token of good breeding.

Along with this, I would insist on the addenda of *sir* and *ma'am* (or madam), in conversation with persons to whom they properly belong. An observance of this is indispensable to the preservation of the various grades and classes of persons in their appropriate spheres. I am not speaking of *castes* in our community,—I repudiate the idea,—but of those divisions marked by nature itself, so necessary to be preserved, and on which the permanent welfare of our people, in a great measure, depends.

These two ceremonies restored and continued in use among us, would reïntroduce a class of individuals into our community, which once formed a most interesting connecting link between childhood and youth or early manhood, but which, of late years, has followed in the track of the "lost arts"—boyhood and girlhood having been practically expunged from the natural series or stages of life!

It is a failing to observe the injunction, "not to think more highly of himself than one ought to think," that has foisted upon us this evil. Rushing to secure the best seats at a public table, appropriating to self the most desirable accommodations in a public vehicle, smoking in presence of others, without ascertaining whether agreeable to the company or not—and even when ladies are present:—these are some of the natural consequences of the new *civilization*. Wearing the hat in the house, engrossing the conversation in company, sitting while their elders are standing, impatience or greediness at table, appropriating personally some delicacy intended as a compliment to a guest or honored friend present, omitting those little attentions and courtesies, which give such an indescribable charm to the social meal,—which are all found in the well-bred man's code of *table manners*,—are among the minor fruits of the system of "Young America."

These things should be noted, deprecated, and corrected. By making them subjects of specific instruction in school, you will confer a lasting and important benefit on the community among whom you labor, while you make your own intercourse with the young a source of continually-increasing satisfaction to yourself.

The countenance of the teacher should wear a benign, or, at least, a calm aspect, that it may not contradict the gentle or courteous language he uses in his intercourse with his school. The salutations at meeting in the morning, and the adieus at parting, should, always when practicable, be practised by the teacher. They tell on the heart not less than on the manners of the young. Compare the families of those where this practice is regarded, with those where it is neglected. I need no other advocate than this comparison, for its observance, among all of even moderate discrimination. The contrast presented, is attraction and repulsion; beauty and deformity; refinement and barbarism.

Politeness is not only for all times, but for all persons; is not to be wholly neglected in the intercourse even of school-children. Some liberties may very properly be indulged in among them, as familiar acquaintances, but these must have their limits; and such intimacies will be profitable or injurious in proportion as this direction is observed or disregarded.

In the conjugal relation, too, particular attention should be given to it; nor do I consider the remark out of place here, although the object of these letters is to reach the young of the school-going age, through the agency of the teacher. Cicero would have boys taught at school those things which they are to practise as men. The rule applies to youth of both sexes; and when a life-union shall be formed between any two of them,—I care not how much of love or admiration they mutually feel,—there must subsist a sufficient degree of reciprocal respect to secure a courteous demeanor, or affection itself will die out. Let the young cherish this idea, if they would realize, in the future, their previous dreams of connubial happiness.

Servants have a claim to our civility, and it has become proverbial that the true gentleman is known, when away from home, by his deportment to this class of persons.

I have, in these remarks, adverted principally to the *boys* under your charge; but, as far as they are applicable to the other sex, I would have them applied with the utmost stringency. More delicate and refined by nature, there is less occasion for such lessons to them. Still, all coarseness in a girl or young woman is a thousand times more repulsive than when exhibited by one of our own sex.—There is one point that I may not pass over here. I have spoken of the self-forgetfulness to be practised, and the small personal sacrifices to be made to others, particularly to ladies and elderly persons, in travelling; and I grant that, with comparatively few exceptions, among those who travel much, there is little room for complaint against those who consider themselves gentlemen; and this offers an encouragement to the teacher, that those whom he is now striving to mould, may, as they assume their place among men, present a just claim to that title. The point that I wish to introduce here is this: Throughout New England, such a degree of deference is usually extended to Woman, that there are individuals of the sex who *claim*, with no doubtful expression, certain privileges from our sex, which every right-minded man will be always ready most cheerfully to yield, but which he is not so willing to surrender at command. In our lecture-rooms, in public travelling conveyances, there is an essential difference in the quality or convenience of the seats. A man appropriates a large amount of time, in going early, that he may secure the wished-for accommodation. One of the other sex comes in, an hour afterwards, it may be, and expects that he will surrender the seat to her at discretion. He does so; but, instead of acknowledging his civility by word or look, she lours upon him with a countenance full of indignation or offended dignity, most emphatically expressing the idea, "You are very impertinent to keep me standing so long in the aisle!"

Every day, gentlemen give up desirable seats in railroad cars, and stand till a vacancy occurs; or take an outside seat in an omnibus, to accommodate a lady within, while a toss of the head, indicating impatience that they did not make the movement more readily, is the only return for the civility! Now, I would have boys taught to practise the very extreme of courtesy—to forego the better for the poorer accommodation, in favor of a lady; but it is the bounden duty of the recipient to express, in civil terms, her appreciation of the kindness in such case. This, therefore, is the lesson I would have taught to the girls—or those that occupy the place that girls *formerly* held in schools—by the learning and practising of which only, they can expect to secure their prerogative, or prove themselves worthy the kind consideration of man. Let it be remembered that she has no *legal* claim to this advantage; that its surrender is a free-will offering on the altar of politeness; that, therefore, the return—the simplest and most obvious on her part—can be nothing short of a courteous word of thanks or acknowledgment, endorsed by a kindly expression of countenance. By this, the civility of the man is felt by him to be fully repaid, and he has hence every encouragement to persevere in his agreeable duty.

I am aware there are numerous exceptions to this mode of receiving these trifling favors; that there exist many examples of all that is elegant in manners, charming in expression, and fascinating in tone, among our accomplished women; but still a false notion prevails with so many others, as to render it important to present the matter as I have done to your attention.

There are few positions in life which furnish so many opportunities for the exercise of good breeding, as travelling. Innumerable occasions occur for removing petty annoyances, promoting the comfort, and adding to the satisfaction of others, which the amiable voyager will not fail to notice and embrace, exciting fellow-travellers to similar acts, increasing the sum of human enjoyment, and proving an authentic claim to the title of a true gentleman.

The late Daniel Webster was remarkable for this; and numerous are the anecdotes related of him illustrative of the fact. Persons familiar with the routes between the seat of government and Boston, during the last thirty or forty years, can state how often the tedium of the journey has been enlivened and charmed by the genuine politeness of the great statesman. Every man cannot be a Webster; but no one is destitute of the ability to be civil and kind, whenever the disposition exists. There is a wide difference in men in regard to refinement of feeling and sensibility to the wants and claims of others; and on this will ever depend complete success in the art of being agreeable, and of ministering to the wants and comforts of fellow-beings.

This, therefore, claims your especial attention. A training in the minute particulars, which perfect and constant good manners involve, should form a part of the labors of every hour while you are in the presence of your pupils; and this to be persevered in to the close of life's toils. The mark which you will thus assist to impress on the successive classes of your school, will be ineffaceable, and continue a glorious monument to your fidelity, long after your mortal part shall have been committed to the tomb, and the undying spirit shall be transferred to the immediate presence, and be beatified by the benignant and unfading smile, of Infinite Love.

LETTER IV.

HABITS.

TEACHERS, like men of all other vocations, are subject to human infirmities; although, in judging them, this consideration is often overlooked. Hence, the increased importance of that self-control which has already been urged on your attention. In our own days, as well as in those of Goldsmith, it is a melancholy fact that the state of mind in which a teacher enters his school-room, and begins the duties of the day, is but too often the foretokening of the day's occurrences;

> "*As* coming events cast their shadows before."

O, furnish no just cause to have it said of you,

> "Well had the boding tremblers learned to trace
> The day's disasters in his morning face."

Let your habits be regular. I mean as to your diet, amount of sleep, exercise, &c. Your temper of mind, your feelings, your nervous system, will depend essentially on this; and these will affect your school-room operations. Some persons, with iron constitutions, are able, for a time, to live recklessly, and yet escape the immediate infliction of the legitimate penalties. They are, however, in their cases, only postponed: *their sin will find them out.* But, with few exceptions, school-teachers have not the bodily vigor to withstand the effects of irregularities of living. They either enter on the profession before the muscular system is hardened into maturity, or, under a confinement to which they had not been accustomed, they usually impair the strength they brought to it, and thus quicken into life those infirmities so fatal to success. I am not speaking of habits of a criminal nature; but of those to which worthy, moral young men, from inconsideration, are very apt to become addicted—and this, as they think, in a good cause. For example: they feel a deficiency of knowledge in some science they are required to teach, or they wish to pursue their investigations in some favorite study; and, aware that the quiet hours of night are most favorable to their purpose, they draw on those hours to such an unreasonable amount, as to leave but a very inadequate portion to meet the claims of the drowsy god; which claims can never be met but in kind—no substitute being, by Nature's unyielding laws, ever admitted. This, then, is the first and great requisition—a liberal amount of sleep, and taken as regularly as practicable. Any degree of knowledge, procured at the sacrifice of needful sleep, is too dearly purchased; especially by him whose days are to be devoted to the instruction and training of the young.

Many persons have tried the experiment of living without sleep, or of showing with how small a portion they could live; but, if they have not died under the trial, they have so impaired their physical powers as to have made the latter part of their lives a burden—full of ails and of nervous annoyances.

It is true, that Napoleon, while in his career of conquest, dashing like a meteor over half of vanquished Europe, lived for months together with but a very few hours of sleep in the twenty-four; and, during a large part of his time, in the saddle. But he was a man of extraordinary vigor of body as well as of mind; possessed an indomitable will, and a fixedness of purpose that knew no aspect but success. Reared in the camp, proof against exposure to the elements and to hardship, he was a model that few could successfully emulate; and, by no means, a suitable one for your fraternity.

Next to sleep, I would speak of food; a liberal supply of which, and that of a nutritious character, I deem indispensable to health and usefulness. I am aware that opinions differ on this point; but experience and observation prove the affirmative of it. The well-considered laws of health, founded upon the structure and natural desires of a human being, testify to it. I say a *liberal* supply; I do not mean a quantity unreasonable in amount or variety. I repudiate the idea of excess. Gluttony may claim as many victims as Intemperance. There is a rational course, which every one who carefully considers the subject may easily ascertain. Let it but be deemed of sufficient importance to secure attention to it, and the evil will be avoided.

On this point, I speak from feeling as well as from conviction. I had, associated with me in school, for eight years, one of the best men, and most successful teachers, that it has been my fortune to know. It was CLEMENT DURGIN; and I am glad of this opportunity of placing his name on record, where it may meet the eyes of his many friends, in connection with a slight tribute to his memory and his worth. It should have been done long ago, by an abler pen: it could not have been performed by a warmer friend.

Mr. Durgin was a self-educated man, and he did the service well. He far more nearly verified the common remark of school-boys, "He knows everything," than many of those who are distinguished by college honors of the first, second, or even third degree. He was a universal student; not of printed books merely, but of the great book of Nature—not sealed to him, but ever open, and read with understanding and perpetual delight. The pebble, the tiny wild-flower, the buzzing insect, the downy moss, the magnificent tree, the singing bird,—all created things, animate and inanimate, were subjects of his contemplation, and furnished him with lessons which enriched his school instructions, while they attuned his mind to harmony and love. Always equable and self-possessed, he seemed to have imbibed the influence of the Source of kindness, the Giver of all wisdom. He was devoted to Natural Science, and to all science, not only from their intrinsic attraction, but from a laudable ambition to *be* something, and to *do* something, in the world. His lectures and addresses, orations and poems,—for he was no mean poet,—evinced knowledge, judgment, patriotism, and taste, of which many young men would have been proud. Patient of labor, and willing to oblige, he was called on to devote many an hour, after his day's school-toil was over, to the preparation of literary performances for lyceums, anniversary occasions, temperance societies, national holidays, &c., to which he always cordially responded, and which he successfully performed.

These proved a fatal temptation to him. Unwilling to present anything not worthy of himself and the occasion, or that should fall below the anticipations of his friends, he bestowed much care and time upon them, and these at the expense of needful rest and bodily exercise, crowning his error with abstinence from suitable food. Having an idea that his intellect was clearer when but little food was in the stomach, he indulged sparingly in eating, and abandoned the use of solid animal food altogether—taking. instead, vegetables, fruit, and pastry, with a little milk. For a short time, he found he could write with more facility and readiness; but nature soon revolted, demanding a supply of nourishment which his newly-assumed diet did not furnish, and which was needed all the more from his accumulated mental labors. This demand was not complied with, or acceded to too late; and he fell into a decline, from which no curative treatment could restore him, and died of rapid consumption, a few months after, at the early age of thirty-one years—a victim to too rigid a system of dietetics, and too small an allowance of sleep and bodily exercise. And yet, so far as man could judge, with the capacity of fulfilling the three-score and ten years assigned as the lifetime of a human being.

His ashes repose amid the quiet shades of Mount Auburn, the trustees having accorded a small triangular lot for the purpose; and on the tablet of his monument is inscribed the following epitaph:

"Clement Durgin, associate principal of Chauncy-Hall School, Boston. Born, Sept. 29, 1802; died, Sept. 30, 1833: a student and lover of nature, in her wonders, he saw and acknowledged, and through them adored her beneficent Author. His life was a beautiful illustration of his philosophy; his death, of the triumph of his faith.

"His pupils have reared this monument, as an imperfect memorial of their grateful affection and respect."

The loss of a life so valuable to myself, to the profession, and to the community, I have unceasingly mourned; and cannot but cherish the hope, that others, influenced by similar tendencies to his, will take warning from this melancholy example, and be just to the claims of their physical nature, as well as to the aspirations of the nobler part; remembering that man is a complex being, and that to neglect the wants of either of the two principal elements is certain eventually to destroy or impair the power of both.

I have here, incidentally, introduced the subject of exercise; but wish to say a word more upon it, and particularly on the mode of taking it. Exercise derived from swinging dumb-bells in your chamber, or from splitting wood in a cellar, is of but little use. It will quicken the flow of the blood, and, consequently, warm the system; but more than this should be aimed at, that the mind may also have a share in the benefit sought for. Choose a place, then, if you can, where the scenery is attractive, and the objects are such as to make you forget yourself, and the reason of your being abroad. If you are favored with a locality that furnishes a water view, seek that, and you will not want for incidents of interest. If, instead, you have hills, or mountains, or forests, they will furnish you with agreeable subjects for reflection, and tend to call you out of yourself, and away from the petty cares of the school-room, or the gossip of the village—a matter of no inconsiderable importance. That sleep is sweetest and most refreshing, which is taken with the mind in a quiet state, destitute of cares or disturbing thoughts, which generate unquiet dreams: so exercise, enjoyed without the intrusion of distracting thoughts, or of objects foreign to the scene around, is not only most agreeable and recuperative, but that alone which is worth the having.

Exercise should, if possible, be taken in the daytime, in the broad sunlight. Everything that grows needs this. The esculent that sprouts in your cellar has no vigor, no greenness, no flavor; it needs the air and the sunshine to give it these. Fishes that are found in the pools of caves, where the beams of the sun never smile, are destitute of eyesight. It is the light and warmth of the sun that cheer, embellish, and bless. Make it a point, therefore, that your exercise may be truly useful to you, to take it, as here indicated, under circumstances as advantageous as possible; but be sure, at all events, to secure daily a needful amount of it.

Attention to these suggestions will do more than anything else within your ability to present you, each day, to your responsible charge with that preparation so indispensable to complete success.

In the opening chapter of Ernest Linwood, the last work of my lamented and highly-gifted friend, MRS. CAROLINE LEE HENTZ, a description of a school scene, in the early days of the heroine of the book, is given, so true to life, and to the practices in the schools of forty or fifty years back, that I hope I shall be pardoned for transcribing a portion of it. If it be objected that this is a work of fiction, my reply is, that such scenes were formerly common in our schools; and, I grieve to say, are not wholly obsolete at the present day.

"With an incident of my childhood," begins the book, "I will commence the record of my life. It stands out in bold prominence, rugged and bleak, through the haze of memory.

"I was only twelve years old. He might have spoken less harshly. He might have remembered and pitied my youth and sensitiveness, that tall, powerful, hitherto kind man,—my preceptor, and, as I believed, my friend. Listen to what he did say, in the presence of the whole school of boys, as well as girls, assembled on that day to hear the weekly exercises read, written on subjects which the master had given us the previous week.

"One by one, we were called up to the platform, where he sat enthroned in all the majesty of the Olympian King-god. One by one, the manuscripts were read by their youthful authors; the criticisms uttered, which marked them with honor or shame; gliding figures passed each other, going and returning, while a hasty exchange of glances betrayed the flash of triumph, or the gloom of disappointment.

"'Gabriella Lynn!' The name sounded like thunder in my ears. I rose, trembling, blushing, feeling as if every pair of eyes in the hall were burning like red-hot balls on my face. I tried to move, but my feet were glued to the floor.

"'Gabriella Lynn!'

"The tone was louder, more commanding, and I dared not resist the mandate. The greater fear conquered the less. With a desperate effort I walked, or rather rushed, up the steps, the paper fluttering in my hand, as if blown upon by a strong wind.

"'A little less haste would be more decorous, miss.'

"The shadow of a pair of beetling brows rolled darkly over me. Had I stood beneath an overhanging cliff, with the ocean waves dashing at my feet, I could not have felt more awe or dread. A mist settled on my eyes.

"'Read!' cried the master, waving his ferula with a commanding gesture,—'our time is precious.'

"I opened my lips, but no sound issued from my paralyzed tongue. With a feeling of horror, which the intensely diffident can understand, and only they, I turned, and was about to fly to my seat, when a large, strong hand pressed its weight upon my shoulder, and arrested my flight.

"'Stay where you are!' exclaimed Mr. Regulus. 'Have I not lectured you a hundred times on this preposterous shamefacedness of yours? Am I a Draco with laws written in blood, a tyrant scourging with an iron rod, that you thus shrink and tremble before me? Read, or suffer the penalty due to disobedience and waywardness.'

"Thus threatened, I did read,—one stanza. I could not go on, though the scaffold were the doom of my silence.

"'What foolery is this? Give it to me!'

"The paper was pulled from my clinging fingers. Clearing his throat with a loud and prolonged hem, then giving a flourish of his ruler on the desk, he read, in a tone of withering derision, the warm breathings of a child's heart and soul, struggling after immortality,—the spirit and trembling utterance of long-cherished, long-imprisoned yearnings.

"Now, when, after years of reflection, I look back on that never-to-be-forgotten moment, I can form a true estimate of the poem subjected to that fiery ordeal, I wonder the paper did not scorch and shrivel up like a burning scroll. It did not deserve ridicule. The thoughts were fresh and glowing, the measure correct, the versification melodious. It was the genuine offspring of a young imagination, urged by the 'strong necessity' of giving utterance to its bright idealities—the sighings of a heart looking beyond its lowly and lonely destiny. Ah! Mr. Regulus, you were cruel then.

"Methinks I see him, hear him now, weighing in the iron scales of criticism every springing, winged idea, cutting and slashing the words till it seemed to me they dropped blood, then glancing from me to the living rows of benches, with such a cold, sarcastic smile!

* * * * * * * *

"Had I received encouragement instead of rebuke, praise instead of ridicule,—had he taken me by the hand and spoken some such kindly words as these:

"'This is very well for a little girl like you. Lift up that downcast face, nor blush and tremble as if detected in a guilty act. You must not spend too much time in the reveries of imagination, for this is a working-day world, my child. Even the birds have to build their nests, and the coral insect is a mighty laborer. The gift of song is sweet, and may be made an instrument of the Creator's glory. The first notes of the lark are feeble, compared to his heaven-high strains. The fainter dawn precedes the risen day.'

"O! had he addressed me in indulgent words as these, who knows but that, like burning Sappho, I might have sung as well as loved?

* * * * * * * *

"I remember very well what the master said, instead of the imagined words I have written.

"'Poetry, is it?—or something you meant to be called by that name? Nonsense, child!—folly, moonbeam hallucination! Child, do you know that this is an unpardonable waste of time? Do you remember that opportunities of improvement are given you to enable you hereafter to secure an honorable independence? This accounts for your reveries over the black-board, your indifference to mathematics, that grand and glorious science! Poetry!—ha! ha! I began to think you did not understand the use of capitals,—ha! ha!'

"Did you ever imagine how a tender loaf of bread must feel when cut into slices by the sharpened knife?—how the young bark feels when the iron wedge is driven through it with cleaving force? I think *I* can, by the experience of that hour. I stood with quivering lip, burning cheek, and panting breast, my eyes riveted on the paper, which he flourished in his left hand, pointing *at* it with the fore-finger of his right.

"'He shall not go on!' said I to myself, exasperation giving me boldness; 'he shall not read what I have written of my mother! I will die sooner! He may insult *my* poverty, but hers shall be sacred, and her sorrows too!'

"I sprang forward, forgetting everything in the fear of hearing *her* name associated with derision, and attempted to get possession of the manuscript. A fly might as well attempt to wring the trunk of the elephant.

"'Really, little poetess, you are getting bold! I should like to see you try that again! You had better keep quiet!'

"A resolute glance of the keen, black eye,—resolute, yet twinkling with secret merriment,—and he was about to commence another stanza.

"I jumped up with the leap of the panther. I could not loosen his strong grasp, but I tore the paper from round his fingers, ran down the steps through the rows of desks and benches, without looking to the right or left, and flew, without bonnet or covering, out into the broad sunlight and open air.

"'Come back, this moment!'

"The thundering voice of the master rolled after me like a heavy stone, threatening to crush me as it rolled. I bounded on before it, with constantly accelerated speed.

"Go back—never!

"I said this to myself. I repeated it aloud to the breeze that came coolly and soothingly through the green boughs, to fan the burning cheeks of the fugitive. At length, the dread of pursuit subsiding, I slackened my steps, and cast a furtive glance behind me. The cupola of the academy gleamed white through the oak trees that surrounded it, and above them the glittering vane, fashioned in the form of a giant pen, seemed writing on the azure page of heaven.

"I cast myself, panting, on the turf, and, turning my face downward instead of upward, clasped my hands over it, and the hot tears gushed in scalding streams through my fingers, till the pillow of earth was all wet as with a shower."

In the sequel of this story, the child is forgiven, and the teacher confesses that he had been unkind, pleading that he "had been previously much chafed, and, as is too often the case, the irritation caused by the offences of many," as he said, "burst forth on one, perhaps the most innocent of all."

Here, then, is the lesson of this letter. Strive to adopt such a course of life as will enable you to keep the feelings and passions under control. Avoid all occasions of angry excitement; and endeavor, on entering your school-room, to leave spleen behind, lest it be vented on the innocent, and you yourself suffer the mortification and regret of being unjust to those you are bound to protect, to guide, and love.

The illustrations I have given, both from fact and fiction, unite in enforcing the same idea. They both show the sad consequences of a mistaken course, on the actor and on those interested in or connected with him.

Other lives are yet to be sacrificed under similar impulses, and other teachers to lose their character and their dignity, when they yield the reins to impatient emotion.

LETTER V.

PUNCTUALITY.

I MAY seem to you to have lingered unnecessarily long in the field of moral preparation for the work you have before you; but I am, continually, more and more convinced that the highest objects of school education are to be secured by reflecting upon this element in your vocation, and fixing the principles and indicating the plans of action to be adopted when entering on the scene of actual labor.

This letter I propose to devote to the consideration of some miscellaneous points, in pursuance of the idea above suggested; and, in my next, to take up some one of the subjects of specific school study.

In my September letter, I condemned the course of Mr. Regulus, not only because he lost his self-control, but because he employed sarcasm and irony in his discipline; and this, too, to a sensitive young girl. These should never be used in school government. They wound the heart of sensibility deeply and permanently. They exasperate the sufferers and their associates, exciting in them a spirit of hostility, which it is hard to allay. And, although, in general, the pupils range themselves on the side of the injured party, there are usually not wanting some among them, who, from envy or other malign feeling, are prone to add their ridicule of the supposed delinquent, to the infliction already imposed; thus indulging a spirit of malice as mean as it is unchristian.—They are ungenerous. The sufferer is entirely in the power of the master, compelled to endure, without even the privilege of making a reply; and, consequently, demanding his consideration and forbearance.

Far better is it to treat every one with an excess of tenderness, than that a single delicate spirit should be crushed by a sarcastic expression.

I would not overrate the degree of tender feeling in school children; it is seldom fairly estimated by those who have not been long familiar with them. It exists naturally in a very imperfect state. With both sexes it is the fruit of cultivation. Girls, being more precocious than boys, exhibit its indications earlier in life, and with more intensity. A large majority of our own sex, during the school age, evince it but rarely, and then in a slight degree.

In the perplexing trials of the school-room, you will sometimes be disposed to plead with your school, that they give you their more constant coöperation in the efforts you are making for order and progress. Your own sensibilities excited, you become pathetic in your appeals. Most of your audience are attentive while you are speaking; some are evidently interested, and you imagine that you have effected a general conversion. You dismiss them,—and the loud laugh and merry shout at your pathos, soon convince you that your effort has been thrown away; at least, on the great mass of your auditors.

It will doubtless shock you, at first, to notice with what unconcern they look upon the most flagrant acts of impropriety in their fellows, as they come up for correction; or their indifference at still more serious ills. The school-house burns down; domestic affliction or personal illness confines the teacher at home. Does the boy weep or manifest any concern? No; he rejoices in a holiday or a vacation that the event confers upon him! The germ of sensibility exists within him; but it is to be developed and cherished, or it will lie dormant, as—left to themselves—do the other faculties and properties of the mind, and every sacrifice will be made on the altar of *selfishness!*

Let not this view of the material on which you will have to act cause you to despond. Study carefully, that you may understand, *boy-nature.* Look upon it calmly, and take courage; remembering that, although, when acting in masses, these embryo men are little affected as you desire them to be, yet that there is not one among them who may not be moved to good issues, if taken apart with you *alone*, and the effort made upon him individually. All the weapons of the boy-nature are at once laid aside, and he yields in dutiful submission.

Boys think it brave to oppose their seniors in public, even when they know them to be in the right; and sometimes the fear of ridicule impels them, in the presence of others, to resist the best impulses of the mind. "*Dare to do right*" is a good motto for every human being, and should be kept constantly before the young.

To "understand boys" was, in the opinion of Dr. Arnold, master of the famous Rugby School, in England, a primary qualification in a teacher, and one on which he placed great stress. It was this—in which he himself excelled—that aided him immensely in the government of his school. He was generous in his treatment of his students, bestowed on them his confidence, and, in doubtful cases, gave them the benefit of the doubt, and thus excited in them a sentiment of magnanimity, which made them his friends and coädjutors. In adopting his example, you may sometimes award a degree of merit not justly due to your pupils; but the balance of good will still be in your favor. If overrated by you, their pride or self-esteem will incite them to an effort to become all that you suppose them to be; while a suspicion expressed of low desert will produce the very opposite effect.

The so-called "minor morals" should be ranked by teachers at a higher grade. Among these stands *punctuality*. In this it is important that your practice be positive. Proximate punctuality is no virtue. To be at your post a few minutes after the appointed time, will not meet the claims of duty. John Kingsbury, of Providence, R. I., the present president of the American Institute of Instruction, stated in public, a few years since, that, during the twenty-five years that he had been a teacher, he had never been tardy but once, and then but a single minute. And Mr. Libbey, a veteran teacher at Portland, Me., stated, in reply, that "he could beat that." It is hardly necessary to inquire as to the success of such teachers. Fidelity and exactness like this are a satisfactory guaranty for the quality of the schools. Hundreds of the honored matrons of the city of Roger Williams are the living testimonials to the merit of the school where they and their daughters were educated; and the universal confidence reposed in the venerated teacher of Portland is evidence enough for his.

Punctuality is a good indicator of habits and character. You may reasonably expect that a man habitually practising it is systematic, orderly, and exact in his business transactions, prompt and upright in his dealings, and just in his various relations with society. It is a fact worthy of note that most of the benefactors of the world, whose history has come down to us, have been remarkable for their observance of this duty.

In your engagement with the school-committee, by whom you are employed, certain hours are appropriated to school instruction. Let no affair, personal to yourself, interfere with the claims of your pupils. Every moment will be needed by them in the various studies they attempt. He who takes school hours for reading his newspaper, carrying on his private correspondence, receiving calls of ceremony, or making arrangements for the evening party, is unjust to his charge, and will inevitably fail of success in his calling, lose the approbation of his employers and of his own mind, if not ensure the execration of the young beings whom he specially defrauds.

Strive to open your school, and close it, at the appointed hours. This will promote punctuality among your scholars, and encourage them to be constant in their attendance. But if any one desires or needs more instruction than the six hours of school-time afford,—although it be "not so nominated in the bond,"—fail not to yield a portion of your own time to the wishes of these ambitious or needy ones. A thousand considerations will arise in your own mind to reward the act, and the good you will thus confer will yield you a richer than a golden harvest. The man who stands, watch in hand, waiting for the hour of twelve to arrive, and then precipitates his school into the highway, whether a reasonable amount of instruction have been given or not, mainly bent on escaping from the walls of his schoolroom, can have but a low conception of the duties of his office, and must be wholly destitute of the spirit of the true teacher. Yet such, and not a few, do cumber the school-houses in some of our towns and villages. O, that we might have a general expurgation of them throughout the land, for the benefit of the rising generation, and the honor of the teaching fraternity!

Much depends on first steps. On assuming the position of a schoolmaster, therefore, you should have well determined in your own mind what you propose to aim at and to accomplish—should have your course well defined, both as respects the thing to be done, and the mode of doing it. And, without attempting anything in the way of class instruction, on the morning of presentation to the school, the time would be profitably spent in an address to them, couched in familiar language, but delivered with an easy dignity of manner, in which you would state what you propose to do for them in the continuation of any good course on which they had entered, introducing to them such other subjects as would be interesting and useful, whether concerning the mind, the manners, the morals, or the affections. In unfolding the value of these various departments of their future labor, you would find it advantageous and interesting to them to intersperse your statements with such illustrations as might be in point, which, if graphically given, they would be sure to remember in connection with the subject; and, at the close, ask them how they like your plan, thus drawing them out, securing their confidence, and preparing them for active coöperation. You would naturally tell them that the term would soon pass away, and that you wished them to make all the improvement of which they were capable, in the time; that this would be expected by their parents, by the committee, and by you. You would assure them of your friendship, your encouragement, and your assistance; telling them, at the same time, that yours would be a *working* school, and that their happiness in it, as well as the amount of their attainments, would depend on their diligence, their fidelity, and the temper of mind in which they should come to school from day to day;—that you would endeavor to be gentle, patient, and kind; but that it would be very difficult for you to be always so, unless each one should strive to do his duty—to do right;—that you should require a strict attention to order, and to all the rules of the school; confident that, without this, there could be no progress, and no comfort in the new relations which had then been formed.

You would, also, insist on regular and constant attendance at the time appointed, showing them not only how much they themselves would lose by absence and tardiness, but how unjust and unkind to their classmates and their teacher it would be, to inflict the loss and labor upon them, which would be the inevitable consequence of their delinquency in these respects.

An address, in some such style as this, would probably secure their attention, excite their zeal, and induce new resolutions to secure your approbation.—Let a recess follow. Give the scholars an opportunity to exchange thoughts on what has been said to them; and, if a favorable impression have been made, this intercourse will confirm and deepen it.

The classification and seating will occupy the remainder of the session, perhaps the whole of the day. No matter — "make haste slowly" is a good maxim. The success of the term will depend mainly on securing a right start. With your best uninterrupted efforts you will be unable, in a school of strangers, to make an unexceptionable organization at first; but, by devoting a reasonable portion of time to the effort, you will have the less to undo.

Tell the scholars that, as soon as you shall have become acquainted with them, you intend to establish a "merit roll," and that you cherish the hope that all, or with few exceptions, will have a claim to the front rank. Tell them that you want them all to become good scholars, but that your highest approbation will be bestowed on those who are the best boys and girls.

By thus showing them that they all have it in their power to distinguish themselves, whatever their scholarship, you may be able to enlist a large number of allies in your work, which will hence go on all the more prosperously, because adopted cheerfully, or from choice.

You are now ready for the assignment of lessons. If it can be done without confusion, allow the voice of each class to fix their length at first, cautioning them against attempting too much, and notifying them that the amount assigned will be required, when due, thoroughly and perfectly learned. You will thus ascertain how much they can master, and save yourself from the murmurs of discontent so almost sure to arise from the new teacher's first tasks. It is difficult for one familiar with the minds of his pupils, in all cases to adopt judiciously the amount to be acquired at a sitting, by each class; and, where the parties are strangers to each other, impossible. A good rule is, to require too little, rather than too much. When the teacher ascertains by experience what the classes respectively are able to do, he can, of course, modify his requisitions accordingly. The mind should not, on the one hand, be overtasked; nor, on the other, have so little demanded as to permit it to lie torpid, or prevent a vigorous action. In this, as in most things else, wisdom points to the middle course. Give enough to do to keep the powers bright, but not enough to crush or to burden.

When the lessons have been assigned, question the pupils, to ascertain whether they know how to study; for on this the facility and certainty of acquisition, in a great measure, depend.

If they have had no instruction on the point, show them how. If the lesson is one merely *memoriter*, it should be studied piece-meal—say, to the first period, and then review; to the second, and then a repetition of the first and second; to the third, and a repetition of the first, second, and third,—and so on to the end; by which process the learner holds, as it were by a cog-wheel, all that he gains, instead of attempting too much at once, whereby the new portions learned drive the former out of the memory.

If the question of opening your school in the morning, with religious exercises, be left for you to determine, you will, of course, decide in favor of it. The good effect of it, if judiciously conducted, will be felt through the day, and its influence carried beyond the walls of your school-room. But let me entreat you not to permit the services to be performed in a dull, monotonous tone of voice, as if the whole were a mere lifeless formality. If the heart be in it, the manner will evince the fact, and the children will feel that it involves a solemn reality. If not, it should be omitted altogether;

> "For God abhors the sacrifice
> Where not the heart is found;"

and your school, instead of receiving benefit, will sustain lasting injury in its religious nature, as well as in its estimate of public religious services.

Be careful, in reading the service,—whether it be in a book prepared for such occasions, or a prayer-book, hymn-book, or the Bible,—to do it with feeling, with appropriate modulation, and all the expression that properly belongs to the sentiments uttered. Why some of the sublimest compositions that have come down to us should be murdered, as they not unfrequently are, by those who attempt to read them in public, it would be impossible to say; but let it not be done in schools, where the art of reading is professedly taught; in fact, where it is the leading department of attention. There, at least, they should be read with propriety and effect.

If you are endowed with *enthusiasm*, you are now prepared to commence your work. This is a property as essential to complete success in teaching, as any belonging to mind. The individual destitute of it, would do well to devote his powers to some other field of labor. If, however, a degree of it subsists, and a strong faith in its importance, it may be increased by culture. The difference between a school conducted by a person largely imbued with it, and one who possesses little or none, is as the living compared to the dead.

On the return of Horace Mann from his educational tour in Europe, he published, in his Seventh Annual Report to the Board of Education of Massachusetts, the result of his observations; and nothing was more striking than the disparity he pointed out between the Prussian schools and those of our own country, in respect to this element of power over the young. And although, it must be confessed, there seemed to be an excess of it, as it was said to be applied to the teaching and management of the Prussian schools, yet I have ever thought that an infusion of the same spirit into our American modes of educating our children, might well be considered as an improvement of very great value.

Enthusiasm in the teacher gives vitality to whatever he says or does in presence of the school; while a heavy, slow, phlegmatic temperament puts to sleep even the animation of childhood, and crushes its buoyancy as with a leaden weight.

I am well aware that a state of unceasing excitement is healthful neither to the body nor the mind; that both would soon sink under it; that teacher and taught would become its victims. I do not, therefore, plead for this. I ask only for the presence of this great principle in the man, to be used as a just discretion may dictate.

Ebenezer Bailey,* a man who stood in the very front rank of good teachers, in the city of Boston, a quarter of a century ago, wrought wonders with a large school of young ladies, taught by him for several years, through the instrumentality of this power. Scarcely did the Prussian mode of recitation and of drill, as related by Mr. Mann, exceed what might with truth be said of Mr. Bailey's school. The latter had not the violence, the almost fierceness of manner, witnessed in the Prussian schools; but for earnestness, for intensity of thought, and breathlessness of action,—nothing feminine in the human form could go beyond them.

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* Mr. Bailey had been very successful in the public service, before the establishment of his private school; first, as principal of the reading department of the South school, and subsequently as that of the high school for girls. This latter excellent and very popular school, having been abolished in the mayoralty of the elder Quincy, on principles of a very anti-republican character, Mr. Bailey wrote an able pamphlet, addressed to the mayor, denouncing the measure in scorching terms. And when he, soon after, proposed opening a school of a

He would arrange a class of ten or twelve around a black-board, and, writing a problem on it, would put them upon their speed in its solution. Each, with slate in hand, would begin, the moment she had caught the idea, to solve it, the object being to obtain the answer in the shortest time. She that succeeded first called out *one*, the next, *two*, and so on to the last. This fixed their relative rank. The classes were usually well matched; and, as the excitement was continued but for a short period at a lesson, it was one of the most interesting exhibitions of an intellectual race that can well be imagined. The rapidity with which the calculations were made, and the figures marked upon the slates by the several competitors, memory even almost refuses to declare. Suffice it to say, that one might travel far, and examine many schools, without finding a parallel in these respects. And this example is given as illustrative of the operation of this quality in the hands of a skilful teacher.

It is not my intention to assert that there are now no schools equal to Mr. Bailey's. This would be untrue; but I wish to keep before the mind of the young teacher the important fact, that the pledge of success in school-keeping is a well-directed enthusiasm, which this school so well illustrated.

It would be impossible thus to influence a whole school, especially of both sexes, of the diversity of ages that attend most of our public seminaries. Nor is it desirable to do it with the same scholars habitually; but he who is able thus to bring out all of mental capacity that a class possesses, has his pupils in his hand, as it were, and may mould them as the potter moulds the clay.

Some school exercises are better adapted than others to secure such entire absorption of the attention; but the enthusiastic teacher will never want for expedients to elicit the ardor of the young, and turn it to the best account.

I shall make no apology for having entered into these details; for I am confident they are what the young members of our fraternity want. To the teacher of experience they are not addressed: he is supposed to be among those who have "already attained."

similar character, on his own account, large numbers availed themselves of the advantage of joining it; and his annual catalogue, for 1829, gives the names of one hundred and sixty-eight pupils connected with it.

He was a thoroughly educated man, of fine taste and just discrimination. His work on Algebra, his Young Ladies' Class Book, and several poems of merit, evince the strength and versatility of his genius. He was one of the leading founders of the American Institute of Instruction, to which he devoted much time, thought, and labor.

LETTER VI.

MORAL INSTRUCTION.

While I was deliberating as to what should be the main topic of this letter, I received the annexed circular, which settled the question at once:

"Toledo, O., *Oct.* 15*th*, 1856.

"Dear Sir: The undersigned having been appointed a Committee, by the Ohio State Teachers' Association, to report, at its meeting in December next, upon the best method of giving moral instruction in schools, would respectfully ask your opinions upon the following questions, with the liberty of making them public:

"What is the comparative importance of Moral Instruction in a system of Education?

"Should special instruction be given in Morals in our Free Schools?

"What is the best method of giving Moral Instruction in School?

"You will do us a great favor by answering the above inquiries at your earliest convenience.

"Please direct to John Eaton, Jr., Toledo, O.

"Very respectfully, yours, &c.,
John Eaton, Jun.,
M. F. Cowdery,
John Hancock,
John Robinson."

It is gratifying to those who believe that the great want in our community is a higher degree of practical morality, to find associations formed for the inculcation and dissemination of moral truth, established in our large towns and cities; public lay lecturers laboring in the same cause; school-masters insisting more perseveringly upon it; and, especially, to find it engaging the attention of an organized body of teachers in a large, intelligent, and powerful State, and adopting measures, like men in earnest, for the securing of the best results.

Most cordially will every true man lend his coöperation to the cause, in a well-founded confidence that, whatever he may be able to do, little or much, he becomes, on easy terms to himself, to such extent, a benefactor to society.

With no desire to claim, even in the humblest manner, any such distinction, but for my own gratification, I shall attempt to answer the interrogatories contained in the circular, to which I but very briefly replied at the time of receiving it. Too late though it be to subserve the special object of the committee who issued the circular, it may not be wholly useless in other directions.

1. "What is the comparative importance of Moral Instruction in a system of Education?"

To this question, it seems to me, there can be but one reply; and that is: *Moral Education is paramount to all other.* The physical and intellectual nature should by no means be neglected; but if *they* are developed, exercised and trained, and the moral nature overlooked, or left to take care of itself, the hopes of humanity may sink in despair.

In the garden left uncultivated, the weeds soon overgrow, and choke the flowers and useful herbs. So with the human soul; if the flowers of virtue that spring spontaneously, — and I admit that such there are, — be not attended to and cherished, the tares of evil may soon overpower and crush them.

I do not intend to assert that man's nature is wholly depraved. As a question of theology, it may not be proper here either to affirm or deny it. I will only say that, in the masses of society, the common tendency seems rather to be more towards evil than towards good. Hence the indispensable necessity of exerting every practicable means of counteracting this tendency.

If the capacities of the mind and body receive the whole attention of the educator, the pupil's power for mischief will be all the more increased, and he may, and probably will, become so much the more accomplished a knave.

> * * * * * "Talents, angel-bright,
> If wanting worth, are shining instruments
> In false ambition's hand, to finish faults
> Illustrious, and give infamy renown."

That talents may be "of worth" (or worthy) in the world, they must have this right direction given them; and this should be done in the school period of life. To delay it is unsafe, if not criminal and ruinous.

I will venture the assertion that those ugly excrescences which darken the page of history in the lives of Nero, Caligula, Richard III., Napoleon I., Aaron Burr, and Benedict Arnold, did not enjoy that early moral training, instruction, and example, which are needful to secure a career of purity, virtue, honor, and patriotism; while, in the examples of Alfred the Great, Constantine, Fenelon, Sir Thomas More, Howard, and Washington, we feel that an influence, potent and holy, was breathed into them, that helped to make them what they were.

All these individuals have their counterparts in all countries, and in almost every school-room, at the present day, — not as to place, power, and distinction, but as to disposition. They, hence, are growing up to crime, cruelty, profligacy, or perfidy; or to honor, usefulness, benevolence, or virtue; — advancing to positions in society, whence their evil deeds will consign to the grave their broken-hearted friends, and their own names to infamy; or from which a halo of light will surround their names, during their lives, for their good deeds, and grateful memory bless them after their departure.

Finally, national probity, honor, and virtue, constitute a State; the State is composed of men; the men of the next generation are now school-boys. What it is desirable to have them become as *men*, they must be taught to be as *boys*. Nor is it safe to leave this work to be done by the pulpit or the fireside. Every proper means that can be brought to bear upon the young, should be put in requisition; and none is more appropriate than, and scarcely any so effective as, the well-applied, faithful, and persevering lessons of the school-room.

From what I have said in answer to the first interrogatory, my reply to the second will readily be anticipated.

2. "Should special instruction be given in Morals in our Free Schools?"

I reply, unhesitatingly, in the affirmative. That it may be found more difficult than instruction in literature and science, I am well aware; for, although there are persons of the nicest degree of moral perception and moral refinement among our fraternity, there are others who, perhaps, might be considered obtuse in the department of morals. There are many thousand teachers in the public schools of our land, who take the situations as temporary expedients, with no intention of becoming permanent in the profession, and who are engaged, only for the lack of better, for a period of a few months. Their qualifications often fall short of the moral department; from such, of course, it would be useless to expect much on this point, whatever the school committee might require.

But even this should not exonerate them from doing what they can. No person should be placed in charge of the young, who has not mastered the great principles of morality in theory, nor whose life does not evince a practical acquaintance with them. The services of better and better candidates should be secured, until those fully qualified can be found. Let committees or school supervisors insist on the moral qualification as the prominent, leading, and indispensable one, and the requisition will increase the supply, until, in time, the schools will, in most cases, be well provided.

The Legislature of Massachusetts, long ago, made it a matter of legal requisition that certain things should be taught in her public schools. The act on Public Instruction, Section 7, reads thus: "It shall be the duty of the president, professors, and tutors, of the university at Cambridge, and of the several colleges, and of all preceptors and teachers of academies, and all other instructors of youth, to exert their best endeavors to impress on the minds of children and youth committed to their care and instruction, the principles of piety, justice, and a sacred regard to truth, love to their country, humanity, and universal benevolence, sobriety, industry and frugality, chastity, moderation and temperance, and those other virtues which are the ornament of human society, and the basis upon which a republican constitution is founded; and it shall be the duty of such instructors to endeavor to lead their pupils, as their ages and capacities will admit, into a clear understanding of the tendency of the above-mentioned virtues to preserve and perfect a republican constitution, and secure the blessings of liberty, as well as to promote their future happiness, and also to point out to them the evil tendency of the opposite vices."

Thus it will be perceived that, as far as Massachusetts is concerned, no public teacher, of any grade, has it at his option to teach morality or not; but, as a loyal citizen, he must do it. Well would it be for every State in the confederacy to adopt a similar law.

Teachers are required "to exert their best endeavors" in this work. Consequently, it should be kept constantly in view, and not be left to chance for its exercise. A time should be set apart for it as regularly as for any of the studied lessons of the school; and at that time it should be invariably brought up.

3. "What is the best method of giving Moral Instruction in School?"

This question it is not so easy to answer, for the reason that teachers of experience, with any degree of originality, must differ in modes, even, of arriving at like results. William B. Fowle, a veteran teacher, of great success in his vocation, alluding to his means of teaching, in the outline of his school plans, says that he teaches

"Moral Philosophy chiefly by Reading the Scriptures, Conversation, and Example." This method, in the hands of a discreet and competent teacher, must doubtless succeed well. Other teachers attempt the same thing by rules, by requisitions, and by the study of books prepared especially for the purpose, like Wayland's Moral Science.

No one plan should be invariably pursued. Children tire of routine and monotony. Variety is necessary, even to the adult mind, to secure attention and perpetual interest; and, with children, this is still more requisite. Schools, again, differ in their elements. Some are composed wholly of young pupils; others, entirely of those in the closing years of school life, — as in the high schools of large towns and cities; others, still, are mixed, — ranging from, it may be, four to eighteen years of age. Hence, a course of instruction must be varied to meet the circumstances of the taught.

In schools of advanced age, didactic instruction may be resorted to with good effect; and if the pupils are required, a few at a time, to bring dissertations, written by themselves, on subjects previously assigned, and these be read to the school, and commented on by the teacher, and, when time permits, by the other pupils, a spirit of emulation will be roused, fresh interest excited, and the school generally be called to reflection. It is to such that the treatises on morals, under various titles, are best adapted. The lessons learned may very properly become the subject of a paper or debate, in addition to the recitation to the teacher.

With all grades of schools it is highly beneficial to notice every incident that occurs among the pupils, or that is notorious in the town or neighborhood, from which a useful lesson may be derived, virtue be rendered more attractive, and vice more repulsive.

Incidents of this nature are suitable to all ages; and, though they be simplified to the degree required by the humblest capacity, will not fail, if skilfully related, to secure, to some extent, the interest of all.

Nor is this peculiar to children. In some Eastern nations, as is well known, itinerants earn their subsistence by the narration of stories, and, if well trained, hold large audiences, wherever they find them, in delighted wonder by their stories, whether fictitious or the statement of facts.

The pulpit, at the present day, is rendered more or less efficacious for securing the attention of an audience, moving the feelings, and converting the mind, in proportion as it illustrates its positions or enforces its logic by the use of narratives. Nay, the Saviour himself evinced how well he knew what was in man, and by what avenues he could reach the recesses of his soul, and convince the understanding, while he touched the heart, by the frequent use he made of parables in his preaching. The train of reasoning may be lost, but the story that enforces it abides forever in the memory, as a salient fountain of encouragement or conviction.

The teacher should take a hint from these facts. There is, as it strikes me, no way by which he can do more for the moral nature of his pupil, than exactly to adopt the method above mentioned. Of course, his own life and character should show forth the worthy doctrines he inculcates.

Subjoined are specimens of anecdotes, original and selected, of the nature I would recommend for school use. The teacher, by a little thought, might collect any number of the kind, and, doubtless, many more suitable and of higher merit.

Let the lesson, for example, be Truth, or the Telling of Truth. If the audience be very juvenile, he may relate the well-known story of Washington and the Cherry-tree, or something that may occur to him of like tendency. If more advanced, or mixed, the account of Petrarch and the Cardinal may be presented. And this, I may, perhaps, be excused for inserting here, as, although familiar to many, it has not been so often presented to our American youth as the former has.

It is this: "Petrarch, a celebrated Italian poet, who flourished in the fourteenth century, endeared himself to Cardinal Colonna, in whose family he resided, by his strict regard to truth. A violent quarrel had arisen in the household of this nobleman; and the Cardinal, that he might ascertain the facts in the case, called all his people together, and required each one to take an oath on the Gospels that he would state the simple truth. The brother of the Cardinal himself was not excused from it; but, when Petrarch appeared to take the oath, the Cardinal closed the book, and said, 'As for you, Petrarch, your *word* is sufficient!'"

I shall never forget the feeling of proud satisfaction for the hero of the anecdote, with which I was filled, in first reading, as a boy, this charming incident. The Washington story, at a still earlier period, had a similar effect upon me. Hence, I infer that boys at the present time would be affected in like manner.

If I wished to inculcate a spirit of justice and manliness, I would relate something like the following: A boy of six years old, at play in one of the streets of Boston, accidentally broke a pane of glass in a window of a dwelling-house. Without hesitation, he rang the door-bell and said to the person who came to the door, "My name is

A. L. T——; I have broken your window, and my father will send a man to mend it." Receiving a kind word from the person at the door, he bowed and ran to his home to relate the case.

Here is an instance of true courage: A teacher, having received satisfactory evidence of the guilt of one of his pupils in a case of serious mischief, was about to inflict a penalty due to the offence, when another boy, of twelve years of age, called out, "O, sir, don't punish William! *He* did n't do it! 'T was *I*, sir!"

As an example of civility and obedience, I would say, A gentleman calling at C. H. S——, on business, one day, requested a lad at the door to hold his horse while he went in. On his return, he offered the lad a piece of money, which was courteously declined. The gentleman insisted, but the lad was immovable, saying, "Mr. T—— would not like it, if I took pay for holding a gentleman's horse for a few minutes."

I say an example of *obedience*. There was no specific school-law for such a case. It was deduced from the law of universal kindness, which was the summing up of the school-code, and which the boy so appropriately applied.

Here follows a beautiful example of youthful kindness:

THE DISINTERESTED BOY.—The sun had set, and the night was spreading its mantle over hill-top, and valley, and lonely wood, and busy village. While the winds were beginning to sweep through the trees, lights were here and there peeping through the windows, to tell that, though the wind was cold and blustering without, there might be peace and comfort within.

At this hour, Mr. Bradley passed through a little village among these hills, and, urging his horse forward as the night became darker, took his way through the main road toward the next town, where he wished to pass the night. As he passed the last house in the village, he thought he heard some one call; but, supposing it might be some boy shouting to another boy, he thought little of it. He heard the call again and again; at last, it occurred to him that some one might wish to speak to him, and he stopped the pace of his horse, and looked behind the chaise to see if he could discover who was calling.

"Stop, sir, stop!" said a little boy, who was running with all his might to overtake him.

Mr. Bradley stopped his horse, and a little boy of eight or ten years came up, panting at every breath.

"Well, my little fellow, what do you wish for?" said Mr. Bradley.

"You are losing your trunk, sir," answered the boy, as soon as he could speak.

"And so you have run all this way to tell me of it, have you, my good boy?"

"Yes, sir."

Mr. Bradley jumped out of his chaise, and saw that his trunk, which was strapped underneath his carriage, was unfastened at one end, so that a sudden jolt might have loosened it altogether, and he have lost it without knowing where it had gone.

"You are very kind, my little lad," said the gentleman, "to take all this trouble; you have saved me from losing my trunk, and I feel much obliged to you. And now, are you tall enough to hold my horse while I fasten the trunk as it should be?" said Mr. Bradley.

"O, yes, sir," said the boy, stepping up, and taking hold of the bridle. He held the horse till Mr. Bradley was ready to start, and then said, "Good-night, sir," and stepped away.

"Stop a moment," said Mr. Bradley, taking a shilling from his pocket; "here is a piece of money to pay you for your trouble, and I feel very grateful besides."

"No, sir, thank you," said the boy, casting his eye full in the gentleman's face; "do you think I would take money for such a thing as *that?*"

"Ah!" said Mr. Bradley, as he afterward related the story, "I saw by his noble look that he had run from one half to three quarters of a mile, for the sake of doing a kindness to a stranger, and not for the hope of pay; and I could not find it in my heart to urge him to take the money; for I knew that the thought of doing good was a greater reward to him than money could have been. So I bade him 'good-night,' and he ran toward home; while I gave whip to the horse, and again rode briskly on; but I often think of that journey, and the noble-hearted boy who lived among the hills."

The following might be used to show the

Advantages of Politeness. — An elderly lady, passing down a busy street in New Haven, was overtaken by a sudden shower. She was some distance from any acquaintance, and had no umbrella. She was deliberating what to do, when a pleasant voice beside her said, "Will you take my umbrella, madam?" The speaker was a boy, perhaps ten years old.

"Thank you," said the lady; "I am afraid you will get wet."

"Never mind me, ma'am; I am but a boy, and you are a lady."

"But perhaps you will accompany me to a friend's, and then I shall not find it necessary to rob you."

The boy did so, and received the thanks of the lady, and departed.

Two years rolled away. The lady often related the circumstance, and often wondered what had become of her friend, but little thinking ever to see him again. In the dull season of the year this boy was thrown out of employment, and, the circumstances coming to the knowledge of this lady, she gave him a good home till March, when she introduced him to a good situation. Verily, kindness seldom goes unrequited, even in this world.

Here is exhibited an instance of gratitude for favors received:

A Passing Incident. — As a man, of generous heart, from the country, was guiding, a few days since, his load of hay to the market, we saw, following him, and gathering the wisps of hay which dropped from the load, a poor woman and two lads, — the latter of perhaps the ages of seven and nine years. Our attention was specially drawn to them, by observing that the man frequently took pains to throw whole handfuls of the hay down the side of the load, in order, as was quite apparent, to convey, in as quiet a manner as possible, sentiments of comfort to the hearts of these suffering poor. As our walk lay in the direction of the market, we determined to witness the conclusion of this exhibition of sympathy and generosity. By-and-by the gleaning became so abundant, that the poor woman could refrain from her expressions of gratitude no longer; and, bursting into tears, she beckoned to the man to stop, and then, in a manner which indicated both intelligence and a delicate sense of her wretched condition, besought him to permit her a single word of thankfulness for his kindness.

"Madam," said the man, "I, too, have been in the vale of poverty, and seen the time when a lock of hay would have been considered a treasure. A friend, by an act of kindness, of less value in itself than the one I have done to you, saved me from despair, and made me hopeful for better days. Years have passed now, and a kind Providence has blessed me with a good farm and a happy home. For years, as I have waked each morning, I have seemed to hear a sweet voice whispering, 'This day *remember the poor*.'"

As he said this, he raised the fork, and threw in the woman's arms as great a quantity as she and the lads could carry, and then drove onward, with a countenance expressive of the truth, "It is better to give than to receive."

We turned from the scene to read again, and with greater profit than ever, the story of Ruth, gleaning in the fields of the generous Boaz, and of the kindness of the reapers to the destitute and successful gleaner.

The following presents a specimen of lofty magnanimity:

A NOBLE REVENGE. — The coffin was a plain one, — a poor, miserable, pine coffin. No flowers on its top; no lining of rose-white satin for the pale brow; no smooth ribbons about the coarse shroud. The brown hair was laid decently back, but there was no crimped cap, with its neat tie beneath the chin. The sufferer from cruel poverty smiled in her sleep; she had found bread, rest, and health.

"I want to see my mother," sobbed a poor child, as the city undertaker screwed down the top.

"You can't, — get out of the way, boy! Why don't somebody take the brat?"

"Only let me see her one minute," cried the hapless, hopeless orphan, clutching the side of the charity-box; and, as he gazed into that rough face, anguished tears streamed rapidly down the cheek on which no childish bloom ever lingered. O, it was pitiful to hear him cry, "Only once, let me see my mother; only once!"

Quickly and brutally the hard-hearted monster struck the boy away, so that he reeled with the blow. For a moment the boy stood panting with grief and rage; his blue eye distended, his lips sprang apart, a fire glittered through his tears, as he raised his puny arm, and, with a most unchildish accent, screamed, "When I'm a man, I'll *kill* you for that!"

"There was a coffin and a heap of earth" between the mother and the poor, forsaken child, and a monument stronger than granite built in his boy-heart to the memory of a heartless deed.

The court-house was crowded to suffocation.

"Does any one appear as this man's counsel?" asked the judge.

There was a silence when he finished, until, with lips tightly pressed together, a look of strange intelligence, blended with haughty reserve, upon his handsome features, a young man stepped forward, with a firm tread and kindling eye, to plead for the erring and the friendless. He was a stranger, but from his first sentence there was silence. The splendor of his genius entranced, convinced. The man who could not find a friend was acquitted.

"May God bless you, sir, — I cannot."

"I want no thanks," replied the stranger, with icy coldness.

"I — I believe you are unknown to me."

"Man! I will refresh your memory. Twenty years ago you struck a broken-hearted boy away from his mother's poor coffin. *I* was that poor, miserable boy."

The man turned livid.

"Have you rescued me, then, to take my life?"

"No; I have a sweeter revenge. I have saved the life of the man whose brutal deed has rankled in my breast for twenty years. Go! and remember the tears of a friendless child."

The man bowed his head in shame, and went out from the presence of a magnanimity as grand to him as incomprehensible; and the noble young lawyer felt God's smile in his soul forever after.

The style of some of these stories may need alteration, but the lessons taught in them will commend their adoption to every one.

In conclusion, I am satisfied that well-selected or original illustrations of the beauty of the several virtues to be inculcated, with well-adapted remarks in addition, by the teacher, will be found most effectual in teaching morals in schools, and have, at the same time, this advantage: that, if the subjects are judiciously chosen, with due regard to diversity, they seldom, if ever, weary the pupil, while they furnish his mind with exhibitions of lofty principles of action, which will be a valuable moral capital to him to the end of life.

POSTSCRIPT.—After the above letter was in type, I received from a friend a copy of Cowdery's "Moral Lessons;" a book prepared to carry out the main branch of the plan for moral instruction, which I have endeavored to unfold and recommend; and I should do injustice to myself, to the author of the work, and to the cause of moral improvement, were I to omit the acknowledgment of my obligation to him for his successful and appropriate labors. It is to be hoped that he will continue the work so well begun, and furnish, as his opportunities permit, an extension of these Lessons,—presenting a greater variety of illustrations, and touching an increased diversity of principles, — to the end that the work may at length become — as it is already, as far as it goes — a full store-house of material for the direction of the young in the formation of habits and principles indispensable to a successful encounter with the temptations to which they will be exposed.

The teacher himself, too, would render an important benefit to his school and his successors, by transcribing, in a book kept for the purpose, every incident or anecdote bearing upon the same point, for future use, — that those of this book may not become inefficient, by too frequent repetition, but, recurring after longer intervals, will retain their freshness and interest. from generation to generation.

LETTER VII.

SPELLING.

IN 1830, — the year of the inauguration of the American Institute of Instruction, — I delivered a lecture before that association, "on the spelling of words, and a rational method of teaching their meaning." The mode therein recommended had then been in use in my own school for ten years or more, and, during my subsequent school labors as a teacher, I never had occasion to abandon it, but had the satisfaction to know that it was adopted with success in many schools, public and private, in various parts of our country. As the lecture in question is nearly out of print, and no copies of the volume containing it to be had, I shall not hesitate to repeat a portion of the ideas it contained on the teaching of spelling.

There are thousands of persons in society who have never occasion, during their lives, to apply their knowledge of Algebra, Geometry, Mensuration, Surveying, &c., to practical uses, although it may have been acquired at the cost of severe labor, of many a throbbing of the brain, and much intellectual despondency; * but not so with this matter of *spelling*. Whoever has learned to write, must inevitably sometimes express his thoughts through the agency of the pen; must do it by language; of course, must know how to spell. And whatever the degree of knowledge he thus unfolds, how finished and beautiful soever may be his penmanship, he abates something in his claim on our regard if he spells incorrectly. Bad spelling, especially of one's native language, is *disreputable*. Every one is bound to spell with accuracy. But what is the true state of the case? What proportion of those who have enjoyed the average means of education among us, do or can spell their vernacular tongue? Take the first fifty persons you meet, of either sex, at any age, and ask of them an off-hand page of manuscript; — if more than one in the whole number accomplishes it without a single error in orthography, you will be more fortunate than most of our fraternity have found themselves; and, I venture to assert, the result will not be more successful than this proportion. Where, then, lies the fault? Is accuracy in English spelling unattainable? Certainly not. I grant that it is, of all the departments of study attempted in our common schools, the most difficult. Still, it may be mastered. It requires only right methods and persevering practice. It is one of the first things to be taken up where the *book* is used, and is to be continued during the whole of the school life.

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* I would not be understood to derogate in the slightest degree from the value of these studies. All, of our own sex at least, should learn them, as opportunity presents; they are highly useful as exercises of the mind, for training in exact reasoning, and needful in many departments of business. They should, however, be taken in their proper order, and of course should *follow*, rather than precede, the *indispensable* studies.

I would not wholly condemn the use of the spelling-book. It is valuable in one stage of the child's progress; but should by no means be used exclusively for *oral* practice. In the primary department of our schools but little is attempted, and much time is spent idly on the seats. Let a portion of this unoccupied time be employed in copying on the slate such lessons from the spelling-book as have been assigned to each individual or class. Let this be done, not merely that the learner may become familiar with the order of the letters in the word, but also with their forms, that he may readily distinguish between letters somewhat resembling each other, such as the *b* and the *d*, the *q* and the *p;* and that he may not fail (as I have known even *teachers* to do!) in the formation of the letters A, M, N, U, V, W, X, Y, &c., &c., transposing the shade and the hair-line, and even giving the wrong direction to the curve of the J, — to the central curve of the S, making it from the right to the left, instead of from the left to the right [thus, ƨ]; and sometimes making the figure *3* for the capital letter ℰ!

The training of the eye is an important part in the business of school education; and you will find no auxiliary more valuable to you in your vocation than that of *visible illustration.* The expert draftsman, through the medium of the blackboard, has a great advantage, in the school-room, over those who cannot draw; and I would recommend that every teacher, whether he have little talent or much in this art, cherish and cultivate it, as one important means of success in his calling.

Who, that has had the privilege of listening to lectures from the gifted Agassiz, has failed to be impressed by the vividness and beauty of his descriptions of animal life and structure, aided by his admirable sketches, made with unequalled rapidity and truthfulness, in chalk, on the blackboard?

But to return: the pupil more readily acquires the spelling lessons by studying them through the practice of copying on the slate, than by spelling them over to himself many times orally; and, as soon as he can write or print the words with facility, his *recitations*, so to call them, in this department should be rendered by this method alone. To spell by word of mouth, should be confined exclusively to beginners, who are unable to write or print with sufficient rapidity to make the plan of the more advanced scholars feasible.

When the children have, by this method, become somewhat familiar with the words in the spelling-book, their lessons in orthography should be taken from the *reading* books of their respective classes. If these books are well adapted to the capacities of the several classes, there will be a gradual progression in the language as well as the style of the books; and consequently an appropriate advancement or elevation in the class of words used for the spelling lessons. The lessons should be, in length, adapted to the capacity of the respective classes — say from a fourth to a whole page of the reading-book; not too long, or they will not be faithfully studied, as the only effectual method of study occupies considerable time. Let these lessons be given *every day:* nothing short of this will be sufficient to make good spellers of all who attend during the school-going age; and they who expect otherwise will surely be disappointed. To give an exercise in spelling once a week; to have it an oral one, comprising, it may be, one or two words to each scholar, and this without previous study, is a complete *sham*, evidently performed with no purpose of improvement, but merely for the name of a spelling lesson. It costs but little time, no labor, and is worth — *nothing!* To such a practice, which obtains in many schools, some of them of lofty pretension, and where the "higher branches" are taught, is the wretched deficiency in this humble but indispensable element of learning owing! Surely, a reform in this direction is loudly called for, even at the sacrifice of a share of the "accomplishments"!

If your school is so arranged as to have all your classes in one room, the lessons might be dictated to the whole in the same operation; thus: the teacher reads from — say the book of the *first* class, three words, marking them with his pencil, and then proceeds to the *second* class, and does the same; and so on till the whole series have been served once round. He then returns to the book of the first class, repeats the words read before, and adds three more; goes on to the second class again, pursuing the same process, and in like manner to the rest, till practice enough has been had, or till all the difficult words in the lesson have been given out. The pupils write these words on their slates, which are then gathered up, class by class, for examination. Every error is marked by the examiner, and, subsequently, the slates are returned to their owners for correction. They should be shown to the teacher, after having been corrected, and then copied into a book, with the part of speech and the meaning of the words as they occur in the lesson added. Much of this work might be committed to the charge of advanced scholars — good spellers — of careful habits, much to their advantage and to the relief of the teacher.

If the classes occupy separate rooms, there would be a saving of time in giving out the words to be spelled, during the *reading* hour of each class; and then dictating but one word at a time, and not repeating it, unless misunderstood by a member of the class; a signal being given by each one when the word has been written. A large number of words may, in this way, be written in an almost incredibly short time, when by practice a class has become expert in the exercise. — I regret here to give a caution against a fraud that is sometimes attempted in these lessons; although when we know that, in our most respectable colleges, similar acts of unfairness are sometimes practised, our mortification is in some degree abated, though our grief remains the same.

Sitting or standing together, boys sometimes, when in doubt of the proper spelling of a word, steal a look at a neighbor's slate, and thus solve the doubt by taking advantage of another's fidelity in study or superior scholarship. Sometimes, too, they have been known to write beforehand, on a corner of the slate, or on a small bit of paper, to be concealed in the hand, the particularly difficult words that occur in the lesson. These and similar dishonest devices, the judicious teacher should vigilantly guard against, and, if detected, denounce in a tone of stern indignation, — making, of course, all reasonable distinction between a *first* offence and a *young* pupil, and one more than once repeated by an old offender.

I have spoken of a particular mode of study; it is this: most pupils, before learning spelling lessons from a reading-book, would have become familiar with the greater part of the words that occur in a piece of ordinary composition, and would naturally infer that all the small words, at least, they could spell correctly. Consequently, in some modes of study, they would be subject to most unlooked-for errors; for it is far from being true that the difficulties in spelling lie principally with the *long* words; numerous examples to the contrary may be easily adduced. The rule, then, to obviate the evil, is, for the pupil to write on his slate, or a piece of paper, to the dictation of another, the whole lesson, — difficult and easy portions, — and, after having corrected the errors by the book, or by the aid of some one competent to the work, to study upon the words missed until all are fully mastered. This having been done before the spelling hour arrives, seldom fails to give the pupil the mastery at the time of need.

This long process may be thought too expensive in time; but not, I think, by those who estimate accuracy in written language at its proper value. It should be remembered, too, that the time is not spent in merely learning to *spell*. Great facility in writing with the pencil is acquired; the capacity for writing English composition is increased; and a better acquaintance with the style of standard authors — from whose writings the selections in our school-books are usually made — is secured. Surely, all these advantages ought to plead for the adoption of our rule.

There is a wide difference in the power of the eye, in different individuals. Some do not see an error, although indicated by the examiner's mark, and will complain that "the word is marked, when it is right"! With such, patience and long practice are necessary. Some are naturally good spellers, and need but little study, while others require a long-continued and resolute course, to conquer the innate defect. I have, however, seldom known one to fail often in the daily task, when studied in this way. On the contrary, I have had pupils who, after having tried various other expedients, and failed of success, come to me and say, exultingly, "I never miss now, sir, since I have studied in your way!"

Although the operation of the rule should be general, in regard to the method of study, individual cases will arise, in which a dispensation may be made to advantage, and should be made, in justice to the individual concerned. This practice continued for years, by pupils with good intellectual powers, right organs, and diligent and careful habits, usually gives a success in orthography reaching to almost perfection — notwithstanding the inherent difficulties in a language which owes its origin to so numerous and great a variety of sources. These are they that may be trusted to examine the work of their school-fellows, and thus benefit themselves and others, while they redeem a portion of the teacher's time for other labors.

You will not have failed to observe, even in a short experience, that certain words are always missed by some members of a class. These should, consequently, be given out whenever they occur in a lesson. Among them you will call to mind, separate, tranquillity, Tuesday, certificate, absence, here, *ad.*, hear, *v.*, there, *ad.*, their, *pro.*, preceding, conscious, crystal, crystallize, &c.; and all that class of words in which ie or ei occur — such as receive, believe, perceive, &c. Likewise, words belonging to the class which double, or not, the final consonant, on taking an additional syllable beginning with a vowel, as wrapped, benefited, omitted, tinned, &c., &c. The persistence of pupils in errors of this kind, goes to prove the necessity of a long-continued course of practice with a large majority, while they remain at school.

The question of a *standard of orthography* naturally comes up here. This may seem to involve the teacher in some embarrassment; but not necessarily. The words are comparatively few as to whose orthography scholars disagree; and, as the books to be used in public schools are decided on by the committee or school-board having the matter in charge, the teacher has no option in the case. He should have an opinion of his own, and express it freely and independently; but he is not responsible for results under the control of his official superiors.

With the teacher of a private school the case is different. He chooses, for his printed authorities, such books as his judgment approves, and *is* responsible for the consequences. Let him keep himself free from partisan bias, and secure the best aids he can find for his noble work.

Every teacher, who is imbued with the true spirit of his profession, will state his views frankly, in the course of his instructions, and give his reasons for them. This he should do modestly, awarding full justice to the books furnished, and to their authors, — mainly desirous to benefit the children of his charge, and not to evince a hostile sentiment to any one.

It is not to be supposed that every teacher in the common schools of our land will be, or will consider himself, competent to decide independently on the comparative merits of rival books, — each having ardent, powerful, and learned friends, — some, perhaps, influenced by personal interest to become the trumpeters in the cause they have espoused; but it is the duty of every one, who has adopted the business of instructing others, to inform himself, to every practical extent, on questions intimately connected with his daily duties.

It has been said that the teacher should be *above* the text-books used in his classes — should be able to correct any error that may occur in them, rather than blindly follow their lead; this I acknowledge to be an important desideratum, and he who approaches most nearly to qualifications of this grade, will prove most worthy of his responsible station, and make it the medium of the highest good. Still, we must accept of something short of this for a time, or many schools will be without teachers. All who act as such, influence their pupils, to some extent, and, hence, things in the book which are disapproved by them, will not be fully adopted by the scholars, whatever may be the written rule. "The master says so," has great weight, even at the fireside.

Although the long "War of the Dictionaries" has been carried on principally by booksellers, almost every one, with even but slight literary pretension, has indulged in predilections for one side or the other, — displayed, at times, in debate of no very amiable tone. Well would it be if all could harmonize, and adopt one uniform standard of spelling and pronouncing our language. But this can never be. It savors too much of conservatism for the present state of the world. The parties would never coalesce. Those who are content with what is time-honored, would not accept a change, whose chief recommendation would, perhaps, be its novelty; and opponents, having secured a degree of success, would never yield their vantage-ground, but persevere in the hope of a final triumph.

Much credit is confessedly due to Doctor Webster, who devoted a whole lifetime to letters, and whose aim was the improvement of his native tongue. But from the time of the publication of his first large work, proposing an alteration in the mode of spelling certain classes of words (1793), to this day, that portion of the community most capable of judging in the case, never favored his innovations. They did not admit the authority of an individual to prescribe the way in which they should write their vernacular. Nor are our countrymen — always jealous of an invasion of their personal rights — peculiar in this respect. The people of imperial France have never universally yielded to the prescriptions of the French Academy — the highest literary authority in their country — for an alteration in the orthography of some classes of French words; but former modes are still adhered to by many of their countrymen, notwithstanding the *prestige* of this imposing authority.

Something might have been done by us and in Great Britain, if learned bodies or institutions, already in the public confidence, had taken a stand in the matter; but to follow the dictum of one man, however learned, the people would never consent.

The style of language of a people must and will be decided by the people themselves. The silent influence of the best writers of the time will always modify the fashion of expression and the mode of spelling; but general changes must ever be gradual, and a long time be required to permeate the masses.

The duty of a lexicographer is to unfold the state of a language as it is used by the great body of educated men, and not according to the fancy of a single mind. His book is to represent what exists, rather than what, in his view, ought to be. And herein, as it seems to me, lies the difference between the two great competitors in the contest referred to. One, a man of notions, has endeavored — unsupported by a great majority of the learned or by current usage — to foist upon the world, in some instances, the results of his own whims, sustained at times by very inconclusive reasonings, not always consistent; — the other, has given us a representation of the language as found in written and in oral use — corroborating his own impressions by writers most worthy of confidence, and by speakers of the purest taste; in pronunciation, accent, and orthography, giving the various authorities in their order, and indicating his personal preference mainly by placing his chosen method first.

If the question were to rest on this view alone, there could hardly be a doubt of the almost universal verdict. But perhaps my statement is partial; possibly, prejudice may mingle its influence and warp my judgment. I, however, give it honestly, with no personal or sinister purpose, but as the conclusion at which I have arrived, after no inconsiderable investigation of the subject for more than a quarter of a century, and all the experience that teaching the language has furnished during that period. But while I would unhesitatingly announce my preference for Worcester's dictionaries over Webster's, because I find in them the evidence of the most careful, elaborate, and thorough study of the language, the most impartial report of its pronunciation as observed in the most reliable public speakers of learning, taste, and experience; I do not hesitate to say that Dr. Webster's are worthy of a place on the desk of every teacher, and in the library of every student. Not because of their etymological statements — these are sometimes capricious; not because of any supposed superiority in their definitions; but because of their general completeness, and the literary *curiosities* which they contain — as well as to indicate my respect for a man who acted as an American pioneer in this field of letters. If I could possess but one dictionary, it should be that of Worcester. But, in conclusion, permit me to say, let a copy of the best edition of the large work of each of these authors be in the hands of every one who has an interest in our noble language, especially in the possession of every teacher, or on the shelves of the school library; let the volumes be frequently referred to, and their contents carefully noted, that the reproach of the general ignorance of our mother tongue may be no longer a disgrace to our people.

LETTER VIII.

READING.

PRINTING has been styled, "the preservative art of all arts;" and *reading* what is printed is the means of communicating to the universal mind of civilized man whatever the press records.

What a leveller — perhaps I should say, what an equalizer — the capacity of reading is! No matter how lowly born, how humbly bred, how obscure the position in life of an individual, — if he can *read*, he may, at will, put himself in the best society the world has ever seen. He may sit down with the good and great men of antiquity. He may converse with Moses and the Hebrew prophets; with Jesus and his disciples; with Homer and Plato; with Shakspeare and Milton; with Fenelon and Newton; with Franklin and Washington; with all the writers in prose and poetry whose works have come down to us, and, through them, with the heroes whose deeds have become the admiration of men; with benefactors, whose acts of love and kindness to their race have proved them to be the sons of God. He may learn the lessons of wisdom that History teaches, the discoveries that Genius has achieved, the light that Science has shed on the world, and the inventions of Art by which the physical conveniences and comforts of man anticipate even his imaginary wants. He may learn how to live, — how to avoid the errors of his predecessors, and to secure blessings, present and future, to himself.

He may reside in a desert, far away from the habitations of men; in solitude, where no human eye looks upon him with affection or interest, — where no human voice cheers him with its animating tones; — if he has books, and can *read*, he needs never be *alone*. He may choose his company and the subject of conversation, and thus become contented and happy, intelligent, and wise, and good. He thus elevates his rank in the world, and becomes independent in the best sense of the term.

Reading, then, stands among the first, if not the very first, in importance, of the departments of school education; and I propose to devote this letter to the subject of teaching it at school.*

Pursuant to the plan I have heretofore announced, I begin with the simplest details. The first step in teaching reading has usually been that of making the pupil familiar with the alphabet, and a large majority of teachers of the present time pursue this course. There is, however, a better mode, one that is far less irksome to the little learner, and which saves time, while it brings more of his mental powers into exercise. It is that of teaching by words, — the names of things, — with a representation of the object, engraved at each word; as, *man*, *cow*, *boy*, &c., attended by the appropriate figure. Every object familiar to the child's experience will at once be recognized; and its name, spelled in letters, will soon become to him identical with the thing itself. These may be multiplied to any desirable extent, and the form of the letters be by degrees introduced to the child's acquaintance.

When, by frequent repetition, he has learned these words thoroughly, he should be put to short and simple sentences, mainly composed of them, but without the drawings. His vocabulary will by this time have become somewhat extensive; his interest will have been awakened, and he will be prepared to take hold successfully of the ordinarily repulsive task of learning the names of the letters and their various powers. These may be acquired through the assistance of blocks or cards with the names and sounds printed on them, but will be learned with more facility and pleasure by copying them with chalk on the blackboard. Rude will be the work of the child at first; but let him be encouraged, and he will rapidly improve. The object is to make something that to his apprehension is an imitation of the letter in the book; other properties will follow in their natural order.

The method of spelling the words should be by the *sounds* of the letters which combine to form them, and not by their *names*. No difficulty will be found in giving the several sounds of the vowels, and, after a little practice, those of the consonants will be easily made; and the pupil will be agreeably surprised to discover of what simple elements the consonants are composed.

The last process in learning the alphabet is that of giving each letter its original name, and no inconvenience will be experienced from thus transposing the order of study. On the contrary, the preliminary steps taken will have furnished facilities for it.

When the alphabet, with the several sounds of each letter, has been perfectly learned, and the pupil begins upon new reading matter, require him, whenever he comes to a word that he cannot pronounce without spelling it, to spell by the *sound* of the letter in the case, and not by the *name*. Teach him to depend upon himself, in all cases embracing previous instruction upon the same or similar points. To prompt him, in every instance when he hesitates, is to impede healthful progress, to keep the mind feeble, and induce him always to lean on another for assistance, at the same time indulging him in a habit of mental indolence, always to be deplored.

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* So important was this part of education deemed by the Romans, that, if they wished to express their contempt of an individual, they would say of him, "He can neither swim nor *read!*"

I do not mean that a pupil is never to be told a thing but *once;* this would be preposterous. On the contrary, repetition, *repetition*, REPETITION! is the law in teaching the elements of language, as the thrice-inculcated law of Cicero, in regard to oratory, was "ACTION!" Still, I say, the pupil must *help himself*, as far as he has the ability.

A reproach to our schools, conveyed in the expression, "It was read in a *school* tone," ought not, after all that has been done for the training of teachers, to be deserved. I fear, however, that, with comparatively few exceptions, it is too well merited to justify any complaint against the charge. The fault begins in the primary school. The true idea of what reading is seems not to enter the minds of many teachers, and hence this bad habit. I understand reading to be nothing more nor less than *talking with a book in hand.* Hence it should be in practice simply an imitation of *talking;* and the very first words read, and all that follow, throughout the school life, should be given as if the sentiments were uttered in personal conversation. Instead of this, the scriptural injunction in our primary-school reading-books, "No man may put off the law of God," is usually read, No-ah — ma-an — ma-ah — poo-ut — o-off — the-ah — law-er — o-off — Go-ud. Here, then, the remedy should be applied. The child should be told to repeat the sentence without the book, and be required to go over and over again with it, until he utters it correctly. The teacher, of course, will give the proper reading of it after the pupil has made a faithful effort without success. Proceeding in this way, and never allowing an erroneous reading to pass uncorrected, the "*school* tone" will never obtain a footing in the classes.

I am aware that this will cost labor, a great deal of it; but it is worth all the labor you may find it necessary to bestow upon it. Your patience will often be severely tried, but you must never yield. Sometimes you may not be able to conquer without devoting the whole time of a class to a single individual. Never mind! Persevere! Try again at the next reading time. You will finally succeed, unless there exists in your pupil some organic defect. In such case, it would be in the language of Job Pray, "workin' ag'in natur'," and perhaps your efforts would be unavailing. But even here, I would say, let the experiment be fairly and faithfully tried before giving up.

Akin to this is another difficulty you may have to encounter. The Irish make use of the rising inflection, in reading and speaking, in some cases, where we use the falling. With children of that nation you may find it a thing impossible to correct this habit. Inborn or inbred from the earliest period of vocal practice, it may not be possible to overcome the fault; still, I would not despair of it as a foregone conclusion, but would resolve on victory. This determination, once adopted, renders almost all things practicable.

Many writers on the subject have given *rules* for reading. They may be very well for adults, and especially for teachers; but I doubt whether, with some exceptions, they can be made very useful to inculcate on the pupil. Whatever the rules adopted in a school may be, *the pupils will read as the teacher does*, imitating all his peculiarities, whether correct or incorrect, whether beauties or deformities. He should, therefore, see to it that his own style — the paramount rule to his pupils — is the result of sound judgment and good taste.

To say that one must "keep the voice up at a comma, and let it fall at a period," and that we should "pause at a comma long enough to count one, and at a period while one might count four," is simply absurd, as invariable rules. This may be well enough in most cases, but the exceptions occur so frequently as to render the rule nugatory; and, besides, reading according to such rules would inevitably be most mechanical, stiff, inexpressive, and lifeless.

The grand, invariable rule in reading is, *read to the sense.* This involves explanation and *instruction* on the part of the teacher, which, with many, are wholly omitted. The lesson to be read should be gone over carefully by him at the time of its assignment; the obscure portions clarified, the classical, historical, political, geographical, and other allusions, explained; and the attention of the class directed to any words, difficult or uncommon, contained in the lesson. They should then be required to read it repeatedly and carefully, before the next class-time, seeking the meaning of every word they do not understand, and the proper pronunciation of those words about which they have any doubt. When they subsequently assemble for the class-reading, the teacher should examine them, to ascertain whether they retain all the facts connected with the lesson, which they are supposed to have acquired, and tell the story of the piece, in their own language, before they begin to read it from the book. They will then be prepared to do justice to the author and to themselves;

but *no one can, unless by accident, read appropriately what he does not understand.*

A good exercise in language is, to require the pupils to introduce synonymes for certain words in the lessons, to be read in the sentences in place of the original words. If these were previously indicated by the teacher, and marked by the scholar, those most suitable for the exercise might be selected, and the benefit proportionally increased.

Nothing serves better to secure the attention of the class than to allow the members to criticize each other; to do which most effectually, each one should signify, by raising the hand or other sign, that he has some error to speak of; and at the close of one pupil's portion, others, at the teacher's discretion, should be called on to make the corrections; and so on till every point has been taken up and set right. These corrections may embrace pronunciation, inflection, emphasis, the miscalling of words, tone, quantity, &c. The repetition of the portion thus criticized will furnish the means of judging to what extent the corrections have been beneficial.

I do not mean, in a foregoing remark, to say that *no* rules can be useful to the taught. There are rules, comprehensive in extent, and almost invariable in application, that may be advantageously insisted on; such, particularly, as indicate the tones of voice most appropriate to the expression of the various emotions of the mind, with appropriate rate, force, &c. These, it is true, embrace departments of the subject more advanced than many of the classes in school would readily appreciate, — those of *taste* and *feeling;* but, still, the judicious teacher need not despair of making all understand them in a reasonable time, if he have books adapted to the various capacities of the pupils.*

That only is good reading which renders the meaning of the author clear, forcible, and expressive, — whose *tones* would indicate the nature of the subject, even when the language was not understood. And this may be attained to by very young pupils, if well taught, and made to comprehend the lesson to be read. A pleasant story, or juvenile dialogue, a child reads with great gusto, and as naturally as he would have *spoken* the parts of the characters represented, had he really been one of them himself. And why? Because he understands it, and enters into the life and action of the scene described.

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* It is to be regretted that, in many schools, notwithstanding the vast number and grades of reading-books, — many of them very good, and well adapted to the wants of the children, — the most ill-judged selections are made, if *selections* they may be called, when apparently taken without the exercise of a thought as to the appropriateness of the means to the end to be accomplished. This is an evil of magnitude, which committees ought to abate.

Any rules, then, that are promotive of such a result should be adopted and enforced. Children soon learn to comprehend the appropriate tones, rate, and force, expressive of cheerfulness, of merriment, and those of anger and scorn, and to imitate them with life-like truthfulness. They could also readily be taught to render appropriately those of affection, tenderness, pathos, sadness, grief, &c. Here, then, is a foundation for some valuable rules. Having had the nature of the piece explained to him, and being made to understand it, the pupil directly adopts the tone and manner that it requires. Is it of a pathetic character? — he reads it in a tone that excites a sympathetic feeling in others:

> "If you have tears, prepare to shed them now!"

> "Stay, stay with us! Rest! thou art weary and worn!
> And fain was their war-broken soldier to stay;
> But sorrow returned with the dawning of morn,
> And the voice in my dreaming ear melted away!"

Is it an expression of strong indignation? — he reads in well-adapted tones:

> "Ay! down to the dust with them, slaves as they are!
> From this hour, may the blood in their dastardly veins,
> That shrunk from the first touch of Liberty's war,
> Be sucked out by tyrants, or stagnate in chains!"

Is it an invocation in lofty and sublime poetry? — he reads in steady monotone:

> "Hail, holy light! offspring of Heaven, first born!"

Is it a familiar, merry ballad? — he reads with lively voice:

> "John Gilpin was a citizen,
> Of credit and renown;
> A train-band captain eke was he,
> Of famous London town."

Is it a grand, patriotic resolution that is to be expressed? — he renders it in tones that thrill on the nerves of his hearers:

> "I know not what course *others* may take; but as for *me*, GIVE ME LIBERTY, OR GIVE ME DEATH!"

And so of all the variety of themes and passions introduced into his reading lessons.

We know of rules, promulgated by some of the best elocutionists speaking the English language, that fail to make good readers. They produce specimens of great artistic beauty; they show how plastic is youthful humanity; but they take all the *soul* out of the reading, and leave instead an image of marble, as polished and as *cold!*

I have, while writing this page, fallen, for the first time, on some lines so well adapted to my purpose, that I will venture to transcribe them. They are credited to LLOYD, and are found in Epes Sargent's excellent First Class Standard Reader, — a book admirably suited to the use of the highest class in our Grammar Schools, but not adapted to classes of a lower grade.[*]

"EXPRESSION IN READING.

'T is not enough the voice be sound and clear, —
'T is modulation that must charm the ear.
When desperate heroines grieve with tedious moan,
And whine their sorrows in a see-saw tone,
The same soft sounds of unimpassioned woes
Can only make the yawning hearers doze.

2. *That* voice all modes of passion can express
Which marks the proper word with proper stress;
But none emphatic can the reader call
Who lays an equal emphasis on *all.*

3. Some o'er the tongue the labored measures roll,
Slow and deliberate as the parting toll, —
Point every stop, mark every pause so strong,
Their words like stage-processions stalk along.
All affectation but creates disgust,
And even in speaking we may seem *too* just.

4. In vain for them the pleasing measure flows
Whose recitation runs it all to prose;
Repeating what the poet sets not down,
The verb disjoining from the friendly noun;[†]
While pause, and break, and repetition, join
o make a discord in each tuneful line.

5. Some placid natures fill the allotted scene
With lifeless drone, insipid and serene;
While others thunder every couplet o'er,
And almost crack your ears with rant and roar.

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[*] This book is prepared with great labor, good taste, and sound judgment; and contains fifty-odd pages of "Introductory Remarks," that few teachers could read without profit. It has, also, a copious "Explanatory Index," of great value to pupils, if not to teachers.

[†] From this criticism I dissent. In a majority of instances, there must be a pause in reading, between the nominative case and the verb; and this in proportion to the length of the nominative or nominative phrase. By it expression is improved, taste gratified, and the sense more fully developed.

6. More nature oft and finer strokes are shown
In the low whisper than tempestuous tone;
And Hamlet's hollow voice and fixed amaze
More powerful terror to the mind conveys [?]
Than he who, swollen with big, impetuous rage,
Bullies the bulky phantom off the stage.

7. He who, in earnest, studies o'er his part,
Will find true nature cling about his heart.
The modes of grief are not included all
In the white handkerchief and mournful drawl;
A single look more marks the internal wo
Than all the windings of the lengthened O!
Up to the face the quick sensation flies,
And darts its meaning from the speaking eyes;
Love, transport, madness, anger, scorn, despair,
And all the passions, all the soul, is there."

Yes, true it is, a proper modulation is the great charm in reading. Without it, whatever beauties the reader may introduce, there must be a fatal lack.

Correct pronunciation, too, is an important element in good reading; and although, without it, the sense may be expressed and the feelings moved, much of the pleasure of the hearer is lost. A coarse style of pronouncing degrades the reader, and gives one a low idea of his breeding and his taste. Fix, therefore, on some standard, and insist on its being the guide in your teaching. Walker's has been the most generally received, for the last fifty or sixty years, and still is, in the main, the most reliable. Smart's, to which many defer, is but a slight modification of Walker's; and Worcester's — an authority of the highest respectability — is, perhaps, the best in present use in this country, as comprising nearly all the points of importance that are fashionable among the best speakers and peculiar to the other two eminent orthoëpists mentioned.

It will cost you infinite pains to fix this pronunciation as the habit of your pupils, because, in a large proportion of the families to which they belong, a coarse style is indulged in, which will do much to neutralize the example and most strenuous efforts of the teacher. But be not discouraged. Correct every mispronunciation perpetrated in school, whether in private conversation, in class recitation, in class reading, or in elocutionary exercises. In time, you will make your *mark*, which will tell with favor and advantage on your school.

Among the errors in pronunciation, current in our community, are those of giving the sound of *a* in far for that of *a* in lad; as in grasp, last, transport; — giving the long sound of *a* for the short sound, in alone, above, atone, and to the article *a*, as *ā* man, *ā* book, *ā* house; — giving the sound of double-*o* for long *u* [ew], in attune, revolution, constitution; * — thrusting *u* into words where it does not belong, as el*u*m, hel*u*m, whel*u*m, for elm, helm, whelm; — giving *er* for *o* or *ow*, in potato, fellow, window; — *aw* for *re*, in more, deplore, restore; † — *er* for *aw*, in law, raw, saw, — or rather adding *r* or *er* to the word, as lawr, law-er; — *i* for *e*, in get, yet; — *e* for *i*, in sit, stint; — *u* for *e* or *a*, in silent, reverence, repentance; — *u* for *i short*, in abil*i*ty, facil*i*ty; — omitting the *d* in and, and the *r*, when not initial, in almost every word; the *e* in belief, benevolent; the *h* in whig, when, what; the *e* in every, novel, counsel; the *i* in Latin, satin, certain; the *g* in present participles, reading, speaking, loving, &c.

Some of these inelegancies are so nearly universal, that persons — critics in language, too ‡ — are to be found, who would abandon the cases as hopeless, making no effort to correct the faults. To such despair the faithful teacher never yields, but, in proportion to the difficulty, nerves himself for the struggle. The faulty sound of the letter *u*, adverted to above, can be corrected, in any school, if the instructor is a man of taste and energy, and resolves in earnest that it shall be done. The same may be said of the much-wronged *r*. There is no occasion for indulging children in calling storm, *stawm;* corn, *cawn;* morn, *mawn;* — nor of pronouncing burst, first, durst, as if spelled *bust*, *fust*, *dust*.

Children in school will do what they are constantly, perseveringly, and resolutely required to do; and if these faults still adhere to them, the teacher is responsible.

Allow me to say a word as to the mechanical arrangement of your reading classes. Method, in trifles even, serves a valuable purpose, and is essential to success with the young.

If your pupils are sufficiently interested in their lessons to require no particular rank in class to induce fidelity, place them in the alphabetical order of their names. Require them always to *stand*, when reading, in a position of ease and gracefulness, the shoulders set back, the chest protruded, the book in the left hand; every eye fixed on the lesson, and, as far as possible, allow nothing to be going on in the room that may divert the attention of any member of the class. Let the lesson be announced — page, subject, author, chapter, &c. — by some one designated by the teacher, sometimes at the head, sometimes at the foot, and sometimes elsewhere. And, instead of the word "Next," when another pupil is to read, call on some one by name, standing near or remote from the preceding reader, and thus, without any regular order, till the lesson is finished; sometimes returning, again and again, if you see cause, to the same individual. You will thus be sure of the attention of every one, and each will have the advantage of instruction, not in his own portion merely, but in that of every classmate.

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* This sound belongs chiefly to words in which the *u* follows *r*; as in truth, rule, ruth.

† An effectual corrective for this, in teaching, is, in such words, to require the pupil to transpose the letters *re* in pronouncing, shortening the sound of *er* a little

‡ "HERMES," in the Boston Transcript of June 26, 1857.

If time should not suffice for a regular and effective drill of every member of the class, do what you can *thoroughly;* sham nothing. To teach a class in reading properly is not the job of a few minutes; it should occupy from half an hour to an hour, according to the number of members, that each one may carry away from the exercise some new thought, some item of knowledge, at every lesson. You, of course, cannot do all this, with each of your classes, every day, unless your school is under the charge of several teachers for the various departments; but — following out this plan — when a lesson *is* given, it will be of some value to the learners.

Several years ago, the Board of Education of Massachusetts distributed a set of questions among the school districts of the Commonwealth, for answers from the teachers; and one of them was, "How many times a day do your classes read?" I thought then, and I think now, that, if those gentlemen expected a single teacher to give instruction in anything *but* reading, in a school of the average number of pupils and classes, it was preposterous to hint that more than one reading lesson a day could be given to each class, unless where the merest elements of school studies were taught. To make accomplished readers of a school of children is a rare achievement, and can only be done by much time and patient toil, and never where, from the unreasonable expectations of the directing powers, the teacher is tempted to slur over the lessons.

I have, in these remarks, very unsatisfactorily to myself, given some views of the importance of reading, and added some notions on the mode of teaching it. I find, on review, that it has been done in an imperfect and rambling manner; and were it not given in the form of a *letter*, in which department of composition large liberty is allowed. I should hardly venture to place it on the pages of the Journal, whose articles generally are so superior as literary performances. My aim, however, is not at fine writing, but rather to do something to aid inexperience in the business of developing, to the best results, the various powers of the young.

LETTER IX.

PENMANSHIP.

In this age of *steam*, when utility and conservatism are often compelled to yield to pretension and hurry, irrespective of positive gain or loss to the community, no one thing connected with school education seems to have suffered more at the hands of the would-be reformers or "new lights" among the teachers of our times, than *penmanship*, or the methods of teaching it in schools. And, consequently, the handwriting of our young men is very inferior to that of the last generation, comparing like classes with like. This may be shown by comparing the signatures to the Declaration of Independence, or the names of the members of the Cincinnati, as they were enrolled at the close of the Revolutionary War, with any similar number of signatures to any public document of the present day. And yet it cannot be denied that this department of elementary education has lost nothing of its importance, either positive or relative, by the introduction into the schools of a variety of other studies, —studies unquestionably useful, but not to be pursued at the sacrifice of a good handwriting, whatever their grade or character. Men may live and thrive, occupy responsible and useful positions in society, serve their fellow-men, become good patriots, philanthropists, and Christians, and know little or nothing of geometry or physiology, but to write illegibly or badly is almost to forfeit one's respectability. Of course, there are exceptions to the rule. We all know individuals, eminent for their talents, knowledge, and position, whose handwriting is as difficult to decipher as the hieroglyphics of Egypt; men who seem to glory in this peculiarity, and who lose nothing in the public estimation from its indulgence. Still, they are not suitable examples for others, in this respect. No merchant would employ them in his counting-room; no author would choose such for amanuenses; and surely they would be the last placed in the teacher's chair.

We must, therefore, assume that it is as indispensable to *write* well as to do any other thing well. This idea was believed and practised upon until within twenty-five or thirty years ago. When what is called the "double-headed system" was universally prevalent in the public schools of the then town of Boston, the writing-master was appointed on account of his supposed dexterity in the teaching of penmanship, and no one was chosen, either master or assistant, who was not himself a good penman. And what was the consequence? The pupils of these schools became distinguished for the beauty of their chirography. They needed no better recommendation to the favor of merchants in distant cities, than to have been educated at one of them. It is true, the range of their attainments was not extensive; but what they professed to do they did well; and when they left school for the counting-room, they were prepared to enter upon the first steps of a business life, to the satisfaction of their employers, and with a rational prospect of personal success.

It must be acknowledged that this preparation was obtained at too great a cost of time and labor to the teacher, and that more occupation should have been furnished to the pupil; but let it be remembered that this was before the introduction of metallic pens into the schools, when two persons — the master and the usher — were obliged to make and mend a thousand quill pens a day in a single school; which service occupied so considerable a portion of the time as to leave but little, comparatively, for other duties. Besides, there were two large apartments in each building, one of which was devoted to instruction in Reading, Grammar, Geography, and (occasionally) Composition; and the other to Writing and Arithmetic, — a portion of the scholars attending one department in the forenoon, and the other in the afternoon — alternating between the two. But, if the very most was not made of the hours in school for the benefit of the children, a greater evil was avoided — that of an excess of lessons for study, not only in the school halls, but at the fireside at home. This evil practice has, of late, attained such a point as to threaten the health and life of the children, and to entail upon the community a race of enfeebled beings, crushed or enervated in body, by overloading and overworking the mind, while little or no physical relaxation or exercise is allowed, to neutralize the effect of the unnatural process.

In some respects the system of these schools has been improved; and most of the large towns and cities in Massachusetts have followed, or are following, the lead of the metropolis. It is well to have *one* head, and make him responsible for the condition of all the departments; but where this last thing is not done, — where the several teachers of a large school act independently of the principal teacher, — the arrangement may prove to be a retrograde step; and this, in fact, I apprehend to be the condition of some of the schools about us and elsewhere.

But, on the particular topic under consideration, — the value of penmanship, and its present deterioration, — I have some additional remarks to make, and some views to offer, corroborative of my own, from other quarters.

EDWARD EVERETT is indebted to the public schools of Boston for his early education. His handwriting is not only perfectly legible, but neat and handsome. In one of his recent speeches, at a school-gathering in the city, he says, — alluding to the subject of writing, as taught in the days of his boyhood, — "that beautiful old Boston handwriting, which, if I do not mistake, has, in the march of innovation (which is not always the same thing as improvement), been changed *very little for the better*." And this sentiment, divested of the Governor's courteous manner, means, I presume, "has been changed" *very much for the worse*.

HENRY WILLIAMS (late *junior*), for seventeen years principal of the Winthrop School in Boston, and second to no one of the public teachers in the beauty of his penmanship, — acquired under the instruction of BENJAMIN HOLT, formerly of the Mayhew School, — says, in an article on Writing, in the *Massachusetts Teacher* for Nov., 1855: "Writing is an *imitative art*, which requires a careful and exact training. The eye and the hand, the taste and the judgment, are constantly employed in producing the desired result, until the hand has attained a cunning which enables it to execute, almost mechanically, every required movement. We mean that volition becomes so rapid, that execution seems, after long practice, to be but the habit of the hand; illustrated thus by Pope:

> 'True ease in *writing* comes from art, not chance,
> As those move easiest who have *learned* to dance;'

affixing to 'writing' the technical meaning which is often assigned to it. This *art* is partly mechanical and partly a mental operation. At first the mental operation needs as much to be watched over and aided as the mechanical operation of the hand; indeed, much more. You give a child a letter to imitate. What is the process which the task involves? He observes the character, but not with the practised eye, the taste and judgment of a penman. He then attempts to put into form and outline his own idea of the letter. The result is a feeble abortion. He tries again and again. His teacher will tell him, we think, if he is judicious, to do it slowly, until he is quite successful. Those who have had much experience in teaching young children, will credit the assertion, that it will generally require two or three years' training before the fifty-two characters of the large and small alphabets are mastered. Hurrying only retards the child's progress. After he has learned, by long and careful painstaking, to imitate these forms, he then learns to combine them; to exercise his judgment in spacing the characters; to discern the fitness of their relative lengths and proportions; and to preserve carefully an exact parallelism in their formation."

The following article, from a late Boston paper, — I know not what one, — is evidently the work of an individual well acquainted with his subject, as far as *Writing* is concerned, — although I dissent from his views of what is doing in *Arithmetic*, believing that that subject receives at least as much attention in the schools as it can fairly claim; — and I gladly avail myself of his testimony to strengthen my position:

"PENMANSHIP. — Within the present generation there has been more deterioration in penmanship than in any other branch of education. In days of yore a good, round, legible handwriting was considered indispensable to our youth; and our fathers, if they could get no more of an education, were pretty sure to understand Arithmetic as far as the Rule of Three, and to write a good hand. And we are heterodoxical enough to believe that for the practical purposes of business, that education, limited as it was, is preferable to the cramming which boys undergo now-a-days, to the neglect of chirography, and the simple rules of Arithmetic. * * * *

"Why are the writers of the present day less rapid and less legible, chirographically, than they were fifty or even twenty years ago? We answer, first, because they are not properly taught. A writing-master in the olden time always insisted upon three points — first, that the pupil should commence with, and be drilled upon, large letters, until he knew how to shape them regularly and well; secondly, that there should be a rotundity to all the letters which admit of it; and, thirdly, that the pupil, in school, should always write slowly.*

* The *third* point was a school axiom fifty years ago, and was embodied in the distich,

"Learn to write *slow*; all other graces
Will follow in their proper places." — T.

"Now mark the consequence of such teaching. The pupil made straight marks until he could make really straight ones, and write them parallel to each other. Then he was advanced to curve letters, and finally to those letters combined of straight lines and curves. He was required to consume an hour in writing his copy of twelve lines, or one line in five minutes. By this slowness his eye became accustomed to form. After writing single letters, he was taught to write words, and then sentences, and for the first year or two he was kept exclusively upon what the schoolmasters call large hand. Then he was allowed to write copies of a medium hand, and finally of fine hand.

"No flourishing was then allowed upon copy-books. Boys were not taught to draw ornithological specimens with the pen, nor to use the pen for any other than its proper purpose. They, therefore, came from school legible penmen. Of course the reader will ask what is the cause of more illegibility in penmanship now? We propose to answer.

"Some ten or fifteen years ago a new race of writing-masters appeared on the stage, who proposed to make their pupils exchange a very bad for a very good style of writing in from ten to twenty lessons. They called their systems by inappropriate names, such as 'anti-angular,' and the like. For a time they claimed to be, and on the surface appeared to be, successful. Their systems, mainly professing to be anti-angular, were peculiarly a combination of straight marks and very acute angles, so as to destroy the proper rotundity of the letters. An incautious observer, from the pains that they took to make their pupils observe *size* in the formation of the letters, would say that their handwriting looked better after the twenty lessons than before; but, if he would attempt to read it, he would find the new hand more illegible than the old.

"Multitudes were duped in this manner, and, having expended their money and their time, soon after relapsed into the old hand which they had previously acquired, and such did not again trouble the writing-masters who teach in a very few lessons. That experience taught the people, what they ought to have discovered by a little reflection, that chirography is a mechanical art, and needs long-continued practice to make its subject a good penman. To make a bad penman into a good one, in from ten to twenty, or even in a hundred lessons, is precisely similar to giving a boy a skilful use of the plane in just so many hours. Nay, worse than that; for the plane can be skilfully managed by an eye competent to judge of smoothness alone; but the penman must appreciate size, form, regularity, and beauty. Unless he does all this, his penmanship will be poor; and he must not only appreciate these qualities, but be able to execute them in his copy. Talk of imparting this in twenty lessons! The proposition is simply absurd. If he has a correct taste and a fancy for chirography, he will get a good handwriting by years of attention, and then he may write fast without writing illegibly. There is no shorter road to good penmanship, maugre the pretensions of quacks and sciolists."

Another reason for the falling off in the quality of the writing of the present day is, I apprehend, a low estimate of its value in the minds of those who appoint the teachers.* If the candidate is found to be what is called a "good scholar," deficiency in penmanship is hardly considered a bar to his election; although to write well is as essential a qualification in a good teacher of a common school, as proficiency in any one of the studies embraced in the school course. There should be an acknowledged standard by which to determine merit in this important branch of learning. The spirits of the past renowned penmen of England and our own country should be evoked, — Champion, Milne, Tileston, Carter, Fox, the Webbs, Holt, and others, possessed like them of undisputed skill in teaching and executing good writing. If candidates for places could make no approach to a good degree of skill like theirs, they should not be chosen. Let the voice of the community resolutely demand this, and it would be forthcoming. It is attainable by most of those who wish to become teachers, — on the condition of determined resolution and perseverance; and they who are unable or unwilling thus to secure it, would do well to adopt some other sphere of labor.

In pointing out the details in the method of teaching penmanship, I should accept most of the sentiments and suggestions quoted above from the Boston newspaper, not only for their being time-honored, but because they are consonant with methods that have been found successful wherever they have been steadily practised. As in Drawing, so in Writing, the straight line should constitute the first lesson, and should be practised till the pupil can form it perfectly. He should have a clear and distinct model of what he is to imitate, from the first mark to the last lesson in finished penmanship. Let the strokes be made in pairs, thus: *//*[1]; it will aid him to secure perfect parallelism, or equality of slope. This accomplished, the stroke with a curve at the bottom follows, thus: *l*[2]; next, the first element of the small *n*, thus: *ı*[3]; then the second element, thus: *ı*[4]; next the *o*[5]; then the *j*[6]. He is now prepared to practise on the *o* and all the letters formed from the *o*, — *a*, *d*, *g*, *q*[7]. Let him next practise on all the letters whose elements he has become familiar with, namely, *a*, *d*, *g*, *h*, *i*, *j*, *l*, *m*, *n*, *o*, *p*, *t*, *u*, *y*[8]; dividing them into several portions for practice; and, finally, the others, which are more or less irregular: as, *b*, *c*, *e*, *f*, *k*, *r*, *ſ*, *s*, *v*, *w*, *x*, *z*, *&*[9], also broken into divisions.

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* It is possible that our fathers exaggerated the worth of good writing; but the effect of their estimate of it on the young was highly beneficial. It excited their enthusiasm and their most earnest efforts, while they wrote, as one of their "pieces" for "Selectmen-day," in a style of perfect beauty:

> "Three things bear mighty sway with men:
> The Sword, the Sceptre, and the Pen;
> Who can the least of these command,
> In the first rank of Fame shall stand!"

A revival of a portion of this spirit would be a decided improvement on the now prevalent apathy on the subject.

Having thus mastered the small alphabet, he may pass to the capitals,[10] either broken up into their elements, or taken whole in their alphabetical order. If the drilling up to this point has been successful, he may attempt the full-formed capitals at once. After sufficient practice on the single letters, small and large, he is prepared for combinations. Let him then join an *m* to each of the other letters of the alphabet, as *am*, *bm*[11], &c., following this combination with a still further practice of the *m* connected with each of the other letters, large and small, thus: *Amma*, *Bmmb*[12], &c. This method, well persevered in, will have prepared him for what teachers call joining,[13] or joining hand; in it we begin to introduce in the copies sentiment, facts in History, Geography, Art, Chronology, as far as it can be done in a single line, and make it the vehicle of important scraps of knowledge, which the pupil inevitably stores away in his memory, for use in all future time.

And here it may not be amiss to say that, on taking up *joining*, you should insist on attention to everything in the copy; not merely the dotting of the *i's*, and crossing the *t's*, but to the punctuation, —

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[1] This may be called No. 1 in the series of copies; [2] this No. 2; [3] No. 3; [4] No. 4; [5] No. 5; [6] No. 6; [7] No. 7; [8] No. 8; [9] No. 9; [10] No. 10; [11] No. 11; [12] No. 12; [13] No. 13.

allowing no comma, apostrophe, admiration mark, question, or other point due, to be omitted. Although this may not, strictly speaking, belong to the teaching of penmanship, it should not be separated from it when thought is to be expressed in what is written; and the injunction is introduced here because of the very general neglect of the matter in the schools.

Require, also, the name of the writer, with the date, correctly pointed, too, to be placed at the foot of every page in the writing-book.

After a practice continued till the principles are mastered in all the relations into which they may be introduced, let the medium hand[14] be attempted, with little variation in the style of the letters, excepting in the size. Next the fine hand,[15] which is that of the ordinary business of practical life.

As nothing acquired by teaching and training can be long retained but by careful practice, a general system of (so to call them) reviews should be adopted; thus: when No. 1 of the series of copies has been well mastered, let it be still practised on the left-hand page of the copy-book, and No. 2 be commenced on the right; this conquered, let No. 3 take the place of No. 2 on the right, and No. 2 fall back to the left-hand page; and thus onward, till No. 13 — the large joining hand — be reached. Let the copies be arranged alphabetically, and the whole alphabet be carried through several times before the next grade — the medium hand — is undertaken, and this in like manner till fine hand be introduced; the same order of grading as before still continued — large hand on the right, to half-joining (No. 12) on the left; medium on the right to large on the left; and fine on the right to medium on the left. In this manner all that the pupil gains is retained, and the whole system held together as by the links of a chain.

The use of the pencil and slate precedes that of the pen; and, generally, the form of the figures used in numbers is learned before writing with a pen is begun. But, if you would have these figures finished with taste and beauty, let them be included in your regular lessons in the copy-books. And, to secure this with certainty, let, say, every eighth page be devoted to figures; and, if you do not "set the copies" in the books yourself, let the books, when new, be marked with an F on one side of every fourth leaf, that the figure copies may not be forgotten. If the pupils in your school who write are few, set the copies for them. They will enjoy it, and strive the more to

[14] No. 14 ; [15] No. 15.

imitate your style, and will doubtless improve the faster for it. But if the writers are too numerous for this, write the copies, — don't use engraved ones, — as well as possible, on slips of paper pasted to card or pasteboard; and require the pupil, when writing, to point the fore finger of the left hand at every letter or figure before attempting to make it himself, and he can hardly fail to write like his teacher.

If your own writing should not satisfy you as a model, procure sets of the old Boston slips, even though engraved.

We have thus run over all the steps in the order of the lessons; and general and business-like practice is now to follow. Portions of well-selected poetry may occasionally, at this stage, take the place of the single-line copies, intermitting with mercantile forms, such as Receipts, Bills of Parcels, Notes of Hand in variety, Bills of Exchange, Accounts Current, Invoices, &c., in general use, every step in which will tend to qualify the boy for what he will have occasion to know and to use, on emerging from the school-room and entering on the career of manhood. If convenient, it would be well to have some instruction and practice with the pen in the various kinds of printing; at least, as far as the large and small letters in Roman and Italic are concerned; * and would often be found of important use on leaving school.

In sitting to write, the left side of the body should be partially turned toward the table, desk, or form, touching it gently, but not pressing it, while the right arm should be drawn nearly to the other side of the body. The pen should be held with some degree of freedom under and between the nail of the thumb and that of the second finger, while the fore finger falls upon the pen to steady it and aid in guiding its motion; the first and second fingers to be kept as nearly straight as practicable; the thumb to be bent. The third and fourth fingers should rest, partially bent, under the others, for their support, yet permitting the latter to play easily over them; and the top of the pen should incline toward the shoulder, thus bringing the nib to press squarely on the paper.

With *beginners* it is essential to insist on a uniform observance of this manner of holding the pen. It is deemed by persons of experience, teachers and non-teachers, to be the true method, approving itself to taste as well as to utility. But if pupils, when first falling under your care, have already, by the indulgence of years in bad habits of holding the pen, rendered the task of correcting them nearly hopeless, — especially if they have acquired a good handwriting, — it is better to allow them to continue holding it in the way that has become to them the easiest and most successful, lest an attempt to improve it should impair the quality of their writing. We have sometimes found persons holding the pen in the most ungraceful and awkward fashion, and yet writing elegantly, who, on being required to adopt the legitimate mode, have degenerated into a stiff and graceless style.

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* This was done in the schools half a century ago, with the addition of German Text and Old English.

I have, thus far, spoken only of writing in copy-books; but the addition of lessons and practice on the black-board would prove a very effective auxiliary. As far as your school arrangements will admit of it, teach in *classes*. Standing in front of the board, write the model in large, fair characters, and require as many pupils as the board will accommodate to imitate it. Others may use their slates for the purpose. Call upon the members of the class to criticize each other's work, and add your own summing up, with reasons for your statements. Guard particularly against the most common faults, such as joining the *o* in the wrong place, or not joining it at all; [it should invariably be joined on the right-hand side, so that when changed into an *a*, *d*, *g*, or *q*, the point of connection may not be visible;] making the lower turn of the *m*, *n*, &c., much broader and thicker than the upper; the loop of the *y*, *g*, &c.,— which is rarely symmetrical with beginners, — too long, or too short, too full, or too narrow, and often having the double curve of the *f*, instead of the single one of the *j*; separating the parts of the *n*, *h*, *p*, &c., instead of carrying the hair stroke from the first shade to the second, &c.; making the stem of the *p*, *q*, &c., either sharp at one end, and square at the other, or both of them sharp, — they should be perfectly *square;* taking the pen from the paper, between two letters connected by a hair-stroke, as in *an*, &c.

Constant vigilance, and continual correction of errors, are indispensable to the formation of a good hand. To know how to execute well, then, is the first grand requisite in the teacher; the next, to furnish good models; and the third, to have a quick eye to detect faults, and a persistent determination for their correction. These conditions existing, and the principle carried out, your pupils *will write well*, with a reasonable amount and duration of practice.

This course is recommended for those who have the privilege of attending school during the years usually devoted to school education.

For those whose school-days are few, — who are to be withdrawn to assist in domestic or other employment, or for some cause that cannot be overruled by the teacher or the school-directors, — a briefer method must be adopted; a method that has little to recommend it, but which is better than nothing in the way of learning this valuable art. It consists in writing, from the start, simple and single words, on a slate, and requiring the pupil to imitate them, without the gradual steps indicated above; copying the same words over many times, as well as possible, and advancing according to his skill, to more and more difficult words, until he is able to form them into sentences, and read them himself. He will then be prepared, to some extent, to write on paper; and may at once begin upon *joining*, in a book prepared for the purpose. It will not be expected that pupils will, with so imperfect a mode of training, become elegant penmen; nor even, excepting in some few rare instances, attain to a style above mediocrity; but they will acquire, under a faithful teacher, who believes in the importance of a means, though an imperfect one, of communicating thought, an inestimable prize; and no one, if his stay at school should be limited to a single year, or even less, should fail of the opportunity of turning this little to the best account. And, in order that time should not be lost, the fact should be ascertained, on the boy's entering school, whether he is intended to continue for a long period or a short one, that the course of instruction best suited to the circumstances may be adopted for him. For want of such information in advance, boys, in our cities particularly, often leave school destitute of a sufficient amount of instruction to enable them to write their names.

To secure the best results for the members of your school, will, I doubt not, be your earnest aim. And, whether their stay with you be longer or shorter, you should strive to imbue them with a resolution to excel. Your own efforts will produce little fruit without their coöperation. Good writing comes not from careless habits, but from a laborious, constant, painstaking, earnest imitation of suitable models. Such models being furnished, perhaps the whole matter might be embraced in the simple words of the trite copy-slip, "*Imitate the copy.*"

LETTER X.

GEOGRAPHY.

WHETHER the absurd method of teaching Geography, which obtained in the early part of the present century, is now practised to any considerable extent, or not, in our country, is matter of conjecture. In districts remote from educational centres, where few if any conventions of teachers are held, and opportunities for comparing views among members of the fraternity are rare, improvements are tardily introduced, and the traditional modes of a less enlightened day, are, in such localities at least, doubtless adhered to. The memoriter lesson is marked, "Get from *here* to *here*," and, the language learned and recited "word for word like the book," according to order, the pupil is dismissed with approbation,—"*perfect*, not having missed a word." Ay; he had missed no *word;* but what *ideas* has he acquired? What has he learned of the form of the countries; their relative positions on the earth; the habits of their people; their productions, climate, and so forth? Can he give you any rational account of any of these? Is he able to describe the form of the territory, or its surroundings? Can he indicate the direction of it from his own home, or answer any of the numerous inquiries that the subject naturally suggests to the mind?

When we confine ourselves to the strict and meagre definition of the word geography,—a description of the earth,—we exclude a large amount of valuable knowledge, which is so intimately connected with geography, as to be claimed as part and parcel with it; or—if this is saying too much—should, at any rate, be studied along with it.

There is not, perhaps, in the whole range of studies introduced into our schools, one so suggestive as that of geography; a study which so naturally introduces so extensive a circle of connected subjects; subjects that can more appropriately and naturally be taken up with geography than by themselves or in any other connection. Geography, therefore, needs to be *taught;* and, without wholly discarding the text-book, the subject should exist mainly in the teacher's mind, that, having drawn, as it were, the *text* from the book, the discourse upon it should emanate from the living soul of the instructor. Thus, and thus only, as it seems to me, can that life and spirit be imparted to it so indispensable to infuse the principle of reality.

Hence, there exists a necessity, more or less pressing, for introducing, in these Letters, some account of what may, perhaps, be considered a better method than that of our fathers.

The most effectual way of teaching geography, unquestionably, is to visit the spot of earth under consideration, and *there* make it the subject of inspection, remark and explanation. No description in language can equal this, nor convey to the mind of the learner any conception of the reality to be compared to it. Next to this is the seeing of the figure of it in material form, with due proportions preserved,—the larger the better,—with all the variety introduced that belongs to the original, as far as the size of the copy will admit. Next, a drawing of the same, including all the lines and boundaries, representing countries, districts, cities, seas, rivers, lakes, mountains, &c.

Proceeding in this order, then,—first by personal inspection, second by the artificial globe, and third by maps,—we are prepared for the filling up of language, describing to the learner whatever he may not fully comprehend, and furnishing such information respecting the productions, people, climate, government, and institutions of the region, as are most important to be known.

We will suppose, then, that there is in the school-room an artificial globe, to which the attention of all the pupils is to be called, and the representation of its great natural divisions of land and water pointed out; first, so far as the "four quarters of the globe" are concerned, and the oceans and seas connected therewith. This is as far, perhaps, as the subject could be successfully unfolded to all classes and all ages and grades of mind in the school at once.

The lowest class, or beginners in the study, should now be taught the definitions of the names of the simplest objects, — land and water, — the pupils, at the same time, sketching them, one by one, on their slates or paper, — the teacher having first given their forms and names on the black-board. If the learners first copy the figures from the teacher's drawings, there can be no objection. Many would, doubtless, need this assistance, particularly the very young, at the start. There is no injury done to them by this kind of aid. It is necessary only to stop short of the point where the child's mind and thought are to be principally exercised. At first he will and must be an imitator. Nay, the same instruction must be again and again repeated.

To say that the child is "stupid" will never enlighten him. It may, and doubtless will, mortify him, perhaps discourage him, and excite a spirit of anger or dislike towards the teacher. But great consideration must be exercised towards children, whose stock of ideas is very scanty, and who are entitled to, not only a large extension of patience on the part of the teacher, but of encouragement also.

When the lesson — which should be a short one — has occupied a sufficient amount of time and attention, the black-board should be sponged clean, and the sketches of the pupils be removed from slates and papers. The catechetical exercise should follow; and, as the pupil answers the question, "What is a cape?" he should be required to draw it on the black-board. It will be found useful, at first, mnemonically, to present certain questions in pairs, — giving those relating to land divisions along with the similar ones in connection with the water, — as an island and a lake; a small island and a pond; a cape and a bay; a sea and a continent, &c.

When these simple terms for natural divisions have been fully mastered, so as to be known by sight and name, the child should commence map-drawing. Let it begin with his own play-ground or house-lot, extended to the public square, mall, common, or other well-known enclosure in his neighborhood, and thus carried on till the town or village is pictured before him. If he is capable of it, he should be required to introduce the various mountains, hills, rivers, lakes, ponds, brooks, &c., that are embraced within the limits of the sketch; but this would usually be too much to expect from beginners. Encourage him to attempt all that he can be reasonably expected to accomplish; but nothing more than he can comprehend and explain.

As he advances in grade, he will be able, with similar leading of the teacher, to give the outline of the State in which he lives. This, like the first step, may be made a very interesting class exercise. Let, for example, the subject be the State of Massachusetts. One boy gives, on the black-board, the form of the whole territory; the next is directed to mark the most easterly county; another the next in course; and so on to the most westerly. The most southerly is then described, followed by the next onward toward the north, till the most northerly is indicated. The members of the class are then called on for criticisms, and any one who detects an error in the form or locality of any county, is sent to the board to correct it.

The rivers, mountains, and cities or large towns, are then "located" in the same way; and, if appropriate instruction has been previously given, questions may be put as to the peculiarities of any of them, — as the heights of the mountains; the character of the rivers — whether navigable, or not; whether used for power in manufacturing, or otherwise; whether affording fish, or not, and what varieties; — and of the cities, as for what, of a remarkable nature, they are distinguished. These details, and others in variety, will, however, as a general thing, be found better adapted to a more advanced stage in the course. But, as far as is attempted, all should be done thoroughly; the exercise to be repeated, from time to time, till every member of the class is familiar with every part of the lesson, and each one can draw the whole, with a good degree of accuracy, from memory.

It is well for the pupil to fix in his mind the resemblance which any country or district of country bears to any object with which he is familiar; as Italy, in the form of a boot; South America, resembling a shoulder of mutton; and the like. Let this resemblance be real or fancied, it will aid him in his task.

When the pupils shall, by this method, have caught the inspiration from the teacher, they may be furnished with an engraved skeleton or outline map, selected at the teacher's discretion, for practice by themselves. Much time, which would otherwise, perhaps, be lost or wasted in idleness, may be thus occupied in filling it up, improving their knowledge of geography, and their style of writing and printing, at the same time.

Some schools that I have known have, by a similar course, become remarkably expert in map-drawing, — securing accuracy of form and proportion, as well as beauty of coloring and penmanship, in the various styles of chirography and pen-printing.*

The other States of the Union may be taken up in the same way, followed by a combination of the New England States; the Middle, the Southern and Western; and, finally, making a grand review of the United States, in one map. Frequent reviews, from point to point, would be necessary to keep the mind familiar with the ground gone over.

Before proceeding further with the American continent, it would be well to cross the Atlantic, and take up the British Islands; sketch the outline of Great Britain, and fill up, as on this side of the water. Thence, cross the Channel to the continent of Europe; make an outline of the whole, and divide the countries as was done by the counties in the lesson on the State of Massachusetts. Subsequently, draw the countries separately, and practise upon them till the form of each one becomes as familiar to each pupil's eye as that of his native State. The remainder of the American continent should follow, with the islands along its coasts. Then Africa and Asia. Every region has its points of interest, but a careful discrimination should be exercised, and time and labor be given to those portions of the world a knowledge of which would prove most satisfactory, agreeable, improving, and useful. To devote much time to crowding the memory with many of the names of places in Africa, for instance, which one would scarcely meet with, except in a treatise on Geography, in the whole subsequent course of his life, would hardly be a wise appropriation of time and study.*

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* That of William B. Fowle, of Boston, especially.

Europe, in its various divisions of Northern, Southern, Central, &c., concentrating so many specimens of grandeur, beauty, natural curiosities and interesting phenomena, and presenting, in its historical records, such a storehouse of the wonderful, the heroic, the patriotic, the scientific, the brave, the self-sacrificing, and the patiently enduring, —besides having been the home of our fathers,—will naturally be found the most attractive and interesting to the learner, of the various foreign regions of the world. He should therefore dwell longest upon, and make himself best acquainted with, that portion of the world; and, as I have before intimated, should be directed by the teacher, as he is mapping out the different parts of Europe, either as countries, districts, or cities, to the birthplaces of the world's benefactors; the scenes of their labors, their sufferings, or their glory. He should remember the good of all creeds,—Plato and Aristides, Brutus and the Gracchi, Alfred and Charlemagne, Gustavus Vasa and William Tell, Laplace and Humboldt, Shakspeare and Milton, Newton and Wilberforce, Fenelon and Jenner, and Hannah More and Grace Darling, and Mrs. Frye and Florence Nightingale,—omitting none of either sex, wherever humanity demands a notice of them.

Palestine and other parts of Asia will also readily attract his attention, and the scenes in which the patriarchs and prophets of the

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* It is not indispensable that the precise order of the maps attempted, as above indicated, should be invariably followed. There may be a better arrangement. In some atlases a convenient and rational order is laid down; and if outline maps, adapted to them, can be had, they will prove an important gain to the learner. My object is to secure a rational and regularly progressive order, which with some is sacrificed to inadequate considerations.

It would be nearly, if not quite, impossible for the pupil, in the usual time devoted to school education, to draw a map or maps of every considerable portion of the globe, without injustice to other studies. It is, therefore, proper to begin with those in which we have the greatest interest, or with whose inhabitants we cherish friendly or business relations. After this suggestion, the teacher's own reflection will be a sufficient guide.

Hebrews took part, and those which were rendered sacred and memorable by the establishment of the Christian religion and the attendant "mighty works" and sufferings of its great Head,—Bethlehem, Nazareth, Jerusalem, Capernaum, Mounts Zion and Tabor, and the Mount of Olives,—all these should be pointed out. The birthplace of Paul; the isle of Patmos, where John closed his long and memorable life; and whatever else of equal interest is known concerning these and other distinguished men, who figured in the sacred history and geography of their times.

In sketching the maps of our own country, the same course should be pursued, and the pupil's attention drawn not only to the birthplaces of the great and good men who have lived and left examples behind for our benefit and imitation, but also to the spots consecrated by their deeds, or by their blood shed in the cause of national freedom, as Lexington, Bunker Hill, Yorktown, Saratoga, Trenton, Long Island. These, with their heroes and martyrs, should be commemorated. Mere military success I should not deem sufficient cause to "make a note of;" but in other countries, as well as in our own, where victory in battle had enabled an oppressed people to throw off the yoke of tyranny, or assist in setting a nation free, I would direct the attention of the learner to it, and to the leading spirits of the struggle. And this would introduce such places as Marathon, Thermopylæ, and Bannockburn.

If it be objected that this is *history* or *biography*, I reply, that no better auxiliary to the teaching of geography can be introduced than those facts and men, which places on the earth bring to the mind, when they are truly memorable in themselves. I would further maintain that geography and history should not be separated, but be always taught and studied together. One assists in acquiring and retaining the memory of the other, and both increase in interest from the union.

The teacher may throw in many a useful word to his pupils in their process of map-drawing, especially in regard to the ridges or chains of mountains in the several continents—how they follow, in their direction, apparently, one particular law or rule in one hemisphere, and a different one in another; so that an observant eye may distinguish the country to which the mountains belong, simply by the direction and relations of the mountains themselves. So in regard to the course of rivers, whose tendencies are in uniform directions in neighboring localities. The teacher will here indicate the cause of this, and also, when their directions vary, state what is the cause of such variation.

The pupil observes, that, in some parts of the world, there are but few rivers. He may not speak of this, but should have the reason for the fact stated to him. He finds, too, that in some countries there is little or no rain; in others, a great deal; and in others still, periodical seasons of rain, lasting for months together. Tell him why it is so. Also, the causes of the trade winds, whose operations seem so wonderful, and yet are made so subservient to the welfare of the mercantile world.

Let him know something of longitude and latitude, and, as soon as he is able to comprehend their meaning, give him simple problems, to test the utility of this knowledge. In travelling, he hears his father say his watch is too slow, and that they are about two hundred miles from home, in an easterly direction. Ask him the longitude of the place, and if he knows the longitude of his own residence, he will say it is —°, or about three degrees less than at his own home, and that the watch is twelve minutes slow. Or, he has travelled in an opposite direction about ninety miles, and his watch is fast, and he may perceive and say that the watch is fast six minutes, and the longitude is one and a half degrees greater than at his own residence. He reads in a newspaper that a ship has been spoken at sea, in a given latitude and longitude, and, turning to a map covering that point, he will see just where the vessel was, at the particular hour when she was seen and spoken.

Tell him, at this stage of his progress, that while we measure the sun's *time* east and west, we reckon his degree of *heat* north and south. Hence he will perceive that, in going from this latitude towards the north pole, the cold will continually increase; and that in travelling in the opposite direction, till he reaches the equator, the heat increases in a similar ratio. Give him next some account of the zones, and the causes of the varied temperature in each. Direct his attention to the productions of these widely-differing portions of the globe. He will perceive that they are distinctly marked in every department of creation, — man, beast, reptile, bird, vegetable, fruit, flower, — and that the production of one zone is rarely found living or growing spontaneously within another, excepting in contiguous or proximating parts. Tell him where to look for the strong, industrious, intelligent, matter-of-fact man, who earns his subsistence and makes the world happier by his labor; and show him that the animals, the fruits, and the vegetable productions of that zone partake of qualities adapted to just that race of men.

The same may be said of the others. Where the physical wants of man are few, little in the way of labor is required of him. Excessive heat abates his strength, and nature feeds and clothes him from her ample storehouse. She feasts him on her luscious fruits, regales his ear with her rich music, fascinates his eye with her gorgeous coloring, and ravishes his smell with her exquisite odors.

In others, again, — in the colder portions, — where little grows or can grow, the inhabitants are few, and they become inured to hardship, and do but little else than perform the natural functions which carry them through a brief and precarious existence. The few brute animals and vegetable productions thereof, partake of the same low grade of properties and qualities, and exhibit a rigid adaptation to what may be termed the law of the climate.

Hence, the pupil may be led to know what to expect from man, beast, fruit, and flower, by ascertaining the part of the globe — mainly the latitude — in which they are found. Taking a list of the districts of a country, cities, and large towns, and comparing them, the known with the unknown, a pretty correct idea may be formed of the temperature and natural productions of each; the probable vigor, effeminacy, and habits of the people. This rule is not to be taken without limitation, for modifications, more or less considerable, are produced by circumstances, which should be pointed out by the teacher.

An agreeable mode of giving a practical character to this part of our subject, and one that is adopted in some schools, is, for the teacher to read from a mercantile newspaper some of the various advertisements of the merchants, making them texts to be commented upon, and to form the basis of a catechetical exercise. Here we read of tea, gunny bags, saltpetre, mace, sumac, spelter, coffee, indigo, cassia, opium, sugar, hemp. Now the question is, first, Whence came they? or, in more familiar language, Where did they come from? This question may be followed by others, in variety, to any extent that the time of the teacher will permit; as, Where is the *place?* is it a city? an island? *what* is the article advertised? what are other productions of the same place or country? the habits of the people? their history? their government? the population of their chief cities? their religion? &c.; bringing out more thought and imparting more information than the same amount of time could do in almost any other course. I am aware that the lack of *time* would not allow every teacher to indulge himself and his school, to any great extent, in this interesting and useful exercise; but still, in my judgment, if but fifteen minutes daily were to be thus appropriated, the advantage to the school would be great, and the good effects on the *families* represented therein would be strikingly observable. How many persons there are, on all sides of us, that have not the slightest idea, even, of the countries which produce the most common articles of daily domestic consumption or use, and even the meaning of the names of many articles constantly advertised in commercial papers! What is learned at school is usually talked about at home; and especially any new idea about *things*, that comes to the learner in a pleasant way, without the formality of an assigned task, and, consequently, without study.

In connection with this exercise, the routes usually pursued by navigators to and from the several ports, from which the articles of commerce, that become the subject of conversation, are imported, would be found a matter of curiosity and interest; and I believe none of our school-books in present use refer to the subject at all. I do not complain of this, but would recommend to the teacher to introduce it along with this miscellaneous exercise, as sure to give much satisfaction to the inquiring minds among his pupils. Caleb Bingham, the best teacher that Boston had in his time, had some questions and answers of this kind, in his little work, called The Geographical Catechism, which in my childhood was a great favorite with me, and whose impression, although many a long year has passed since I studied it as a class-book, is still vivid and pleasant in my memory.

Among other facilities for illustrating the subject of geography, are the raised maps, or maps in relief, representing the inequalities of the surface of the earth. These maps are found highly useful with the advanced classes of a school, whose members are capable of comprehending the scale of comparison introduced, and always fix and reward their attention. They are confined principally to mountainous countries, but are not without interest when typifying those that are comparatively flat. Several have been imported, representing Italy, Switzerland, Europe, Germany and the Netherlands, France and Belgium, Mont Blanc and environs, and others,—whose most prominent mountains can be easily recognized by those who have travelled in the several countries, and have felt a sufficient interest in the subject to ascend their grand elevations, and institute comparisons between them. Those of the greatest altitudes loom up, even in these miniature models, with a degree of grandeur not readily anticipated, when the scale on which they are necessarily projected for school uses is considered; and they challenge the admiration of the young student, as, assisted by them and his own imagination, he climbs their snowy tops, and looks, almost giddy, into the vales below.

In some portions of a country denominated "hilly," the surface of the map is little more irregular than the outside of an orange; while that of others, like Mont Blanc, presents very striking elevations.

Thus, from the ordinary hill to the lofty peaks of the Alps, a careful, and, apparently, correctly-graduated scale, is adopted and followed throughout. Every teacher, therefore, who can command a set of these maps, would find great utility in their use.

They might be used to advantage in connection with the engraved classification of mountains, found in many school atlases.

The mere learning by rote of the names and heights of mountains, of the elevations and depressions from the surface of the sea of various territories, can make no impression on the mind to compare in permanency with what is acquired through the medium of the eye, assisted by the judgment; and hence these maps have claims superior to the other means of instruction and illustration, which have usually been found in the schools.

I have purposely avoided making the discriminations of Physical, Mathematical, and Political geography, because I wished to range freely and at large over the wide field embraced in the general subject; and because I believe that, in traversing the surface of the globe, unfettered by technicalities or rigid rules, I could appropriately touch upon any topic having near relations to the soil, and what it is producing, or has produced, worthy of being known to the young. Method is well, and there are studies which require a rigorous adherence to it, and particularly as the student advances in years and mental capacity; but, as I wander with my pupil, for a peripatetic lesson, and call his attention to the flower by the wayside, the rock of the crag, or the lofty tree of the forest, so, in the survey of the crust of the planet we inhabit, I cannot willingly pass specimens of the striking, the noble, or the instructive, without endeavoring to turn it to a profitable account.

We cannot make the school-boy's task too agreeable. There is no danger that he will not have labor enough, and vexation enough, and confinement to his books and the school-room sufficient to exercise all his patience and temper, his memory, his reasoning powers, and his physical endurance,—give him what auxiliaries we may. And this should always be borne in mind. The work that he is capable of doing I would require of him; but whatever of sunlight can be thrown in upon his path of intellectual toil should not be withheld. He will then not only acquire more, and comprehend what might otherwise be obscure in his mind, but will *enjoy* as he labors, and thus be encouraged to press on to higher and nobler attainments, urged by his own wishes and feelings, rather than by the requisitions of those who direct him. This is not only desirable for the pupil's sake, but changes the teacher's task to a delightful recreation.

LETTER XI.

REWARDS AND PRIZES.

THE subject of this letter is REWARDS IN SCHOOLS, as among the means to be introduced to secure the best results of school-education in the most genial, natural, and agreeable manner; to which I shall add some remarks on excessive school-study.

The transcendental idea that the young are to study for the love of knowledge, or from a sense of duty, has of late gained many converts in our community; but I shall endeavor to show, — how agreeable soever it may be to influence, control, or direct, by such considerations alone, — that, in large schools, especially with the very young, other motives must be appealed to. It cannot be reasonably supposed that a thing so unnatural to children as confinement in a school-room, in constrained, long-continued, and perhaps fatiguing positions, with little change or variety, is to be made tolerable by the announciation of an abstract principle; particularly when the tasks imposed are as unattractive as the confinement. Children, like the young of other animals, delight in action. The kitten, the kid, the lamb, the colt, in their unrestrained habits of playing, gambolling, and bounding, symbolize children in a state of nature. Left to the exercise of their innate tendencies, they are found as buoyant and frisky as the young of the irrational creation. Most of the smaller birds never *walk;* but when in motion on foot always run or *trip*. So as a general thing with children, especially boys; when abroad, free, and left to their own choice, they seldom walk, but move with a sort of *skip*. Hence, we perceive the propriety and importance of measures that may call them out of this, their normal state, without violence to the instincts with which they come into life, and awaken an interest in objects and employments for which they have, with few exceptions, little or no natural propensity. How, then, is this to be done? Of course, we admit that there is, in most families, some degree of order, system, or discipline, to which the little ones are expected to submit; and to which they do render what is considered submission, although in various degrees, from the legitimate and prompt obedience of the olden time, down to what some disciplinarians would deem insurrection. This amounts to something, however little, in the preparation of the children for school. The animal buoyancy of the young being is, to some extent, checked. He is partially prepared for the most urgent of the school requisitions, and, in time, comes to look upon the scene of his daily life as other than a prison. Still, many things are to be introduced before it becomes to him a place of happiness or even of content. The kindness and parental consideration of the teacher are, undoubtedly, the most potent general influence, — the first to be exercised, and the last to be surrendered. If the room is sufficiently spacious; if it is light, well-ventilated, properly warmed in cold weather, and has a pleasant location; if, still further, it contains within its walls specimens of art and beauty, — engravings, paintings, sculpture, flowers, and the like, — much is gained towards reconciling him to the various requirements of school. After a while, however, these influences lose a portion of their power. The young of the human race live on novelty. The expedient of to-day must give place to a new means of excitement to-morrow. Some form of indulgence, privilege, or distinction, must now be inaugurated. What shall it be? In some shape or other, it is a *reward*. No matter in what it consists: a picture — a ticket of approbation — a "merit;" they all come to the same point; all appeal to the child's love of approbation.

There are persons, of large experience as teachers, who disapprove of this, who denounce the use of emulation, condemn school prizes, and profess to use no means for exciting the ambition of their pupils; but who, by a simple system of weekly reports of the deportment, character of lessons, &c., sent to the pupils' homes, produce the highest degree of mental excitement, — in some cases to the sacrifice of health.

I cannot see the distinction between one of these modes of excitement and the other. Both induce to effort, and both may be abused. Discretion is required in either case; but it is not for him who resorts to one method to secure his object; to condemn him who prefers another.

At home, the mother's kiss, the father's smile of approval, his cordial shake of the hand, accompanied by the word of encouragement — these may take the place of the *tangible* reward. They are, in fact, equally real and effective. They address themselves, in like manner and with similar force, to a motive ever rife in the mind of man, — a motive placed within him to be used, not crushed, — a motive which has led to the most heroic and magnanimous achievements recorded on the page of history. It is *the desire of praise*, the hope of reward or personal benefit, in some expressive form. Tell me, if you can, where it does not exist, where it is not felt, encouraged and nourished. The mother cherishes it as she breathes the flattering word into the infant's ear while he frolics on her lap; that infant bears its impression in every step of his progress towards manhood. At home and at school, throughout his college course, he is under its influence; beyond that, in the maturity of manhood, in his second and third degrees; in all his promotions; in his titles of professional life; in his official positions; in his deeds of humanity, of daring, and of self-sacrifice. He rescues a human being from destruction; he emancipates an enslaved people; he introduces a means of meliorating human suffering; he discovers an antidote to disease; he invents a magnetic telegraph; descries a new planet; brings down the sun to paint his pictures; — all these are followed by appropriate rewards: rewards bestowed by teachers of every grade; by humane societies; by learned professors; by academic governors; by grave councils; by the executives of states; by kings, queens, and emperors. And can all these be wrong? Why, among all the enlightened nations of antiquity, were statues set up, mausoleums built, and monuments erected in memory, or to the honor of, good or great men? Why have godly men even yearned for the glories of martyrdom? Is this desire for fame, — for an immortal name, — so universally felt, to be scorned or ignored? Did not the great Founder of Christianity, " for *the joy set before him*, endure the cross, despising the shame"? Did he not promise the inheritance of heaven to the pure, the humble, the benevolent, the obedient among all nations?

It seems, then, that throughout all time, *personal advantage* — real or imaginary — has been at the bottom, has been the motive, the pole-star of the good and the great, as well as of the obscure among men. Of course, good results, beyond those of a personal nature, were expected, in most cases, to supervene; and many a one has been unconscious of the influence that stirred him in his noble work. Still that influence was the motive power.

Why, then, denounce the use of an agency so efficient for the mind's highest good; and that, too, in a department of human labor in which all proper appliances and aids are so much needed?

I do not mean to affirm that no conceivable collection of young persons can be educated without a resort to stimulants like those adverted to; but only to say that, as a general rule, rewards are indispensable to the attainment of our wishes in school. A limited number of children, of docile dispositions and unexcitable temperaments, selected from well-ordered families, — particularly those not over-anxious for rapid school advancement and the development of precocious mental powers, — might succeed very satisfactorily, with little or no application of extraneous motives. So some young ladies, enjoying the example of enlightened and highly cultivated mothers, may be found, during the school-going age, to have so far risen above the need of ordinary stimulants as to look upon them with indifference, — having attained to that state of mind in which other considerations preponderate. Such cases I have known, and cheerfully acknowledge; but this does not invalidate the argument, nor induce us to pronounce useless — far less hurtful — the application of rewards, in some form, to schools as they commonly exist around us. Rewards are *needed* to rouse the torpid; to excite the sluggish; to vitalize the inert; to interest the indifferent; to appease the passionate; to persuade the obstinate; to render docile the intractable.

Very few exceptions to the universality of the rule exist; and even where they are supposed to exist, the *spirit* of the rule is there, and its influence is *felt* in full operation!

There is one institution* in the country, ostensibly acting independently of this universal motive; and the government of it proceed on the theory of the absence of all rewards and all penalties. They appeal to the sense of propriety, duty, honor, in the students; and the appeal, it is said, is seldom made in vain. The thought is grand, and the result must be elevating and ennobling, if it can be infallibly carried out. But what are the circumstances of this seminary? The students are of the usual college-going age as found in the West, — older than those of the long-settled parts of the country, — comprising both young men and young women, to whom instruction, beyond the elements, is considered a privilege and a boon; persons resolved to make the most of their opportunities, which they feel to be precious, and to which they devote a portion of their lives, that is measured, in their geometry, by *dollars* and by *ingots*. Hence, the frivolities which attach to the students of most other collegiate institutions, present slight attraction to them. The interest which is exerted in them by the peculiarities of their position, overcomes or holds in check many temptations; and even indolence — that almost unconquerable bane to progress — is mastered.

But even this institution admits, practically, the propriety or necessity of the universal law, by conferring degrees on its graduates. Not only so, but it refuses to give a diploma to any individual, —

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* Antioch College at Yellow Springs, Ohio — Horace Mann, president.

whatever may be his or her classical or scientific attainments, — unless the moral character be good. This plan receives my hearty approval, and deserves to be copied by every institution throughout the land, which confers degrees. Honor to the man or the government that originated it, and still more honor to those who have firmness enough to carry it into practice. But let it be observed that the *reward* is still at the foundation of it, and must, mainly, be the cynosure that guides the student through his whole college career.

Is it said that the *moral* character only is affected by this? If this be granted, still our principle obtains: The *reward* does the work; and one might as well expect to create a world as to eject this motive-power from the human soul, or to crush out its never-ceasing operations. But let it be remembered that while purity of life, a consciousness of moral obligation, and allegiance to the claims of duty, are the practical motives to the student, he will rarely fail in that fidelity to the claims of his class, which results in good scholarship, and which, in other seminaries, is followed by distinguished rank; and, beyond the years of college-life, will give him position in the world, whether he wear the minor honors of his Alma Mater or not.

That the young in many schools may be, and often are, over-stimulated, I admit and lament. It is, unquestionably, the fault of the age, and owes its origin quite as much to the *home department* as to the school. But the abuse of a thing by no means proves that the thing itself should be repudiated. As well might one wish to annihilate the sun, by which all nature, animate and inanimate, is cheered, invigorated, fostered, matured and blest, — because, sometimes, under its meridian beam, a human being is prostrated, or, in the absence of accustomed moisture, the harvests of the husbandman are cut off, and the parched earth threatens a district of country with famine. As well might we say, let the winds be pent up in eternal caves, — although the life and health of man depend upon their action, — because a gale sometimes wrecks our ships, destroys our property, and drowns the voyager in the ocean depths. There is, in the course of events, to individuals no unmixed good. In the great, all-embracing scheme of Providence, the good greatly preponderates; and while a moderate amount of what, to our limited intelligence, appears evil, is permitted, could we survey the complete arrangement of the All-wise, with an unclouded vision, unbiased by selfish considerations, we should be ready to admit now — as the Creator "saw" in the beginning — that "*all* is GOOD."

It is not denied that this *feeling* — so to call it — may be perverted, as may every propensity in man's nature; and, hence, reason has been given to regulate and guide him. This does not, however, change the nature of the question, nor call upon us to denounce the principle. It merely requires that our best discretion should be exercised in the use of it.

I am well aware that the distribution of school medals, or other prizes, wherein competition or rivalry is most actively engaged, has been the main cause of the earnest opposition to the prize system ; and I grant that, so far as relates to schools, the utmost caution should be employed in the bestowment. Where a limited number of these prizes is to be contended for, emulation is often excited to its highest pitch, and serious consequences sometimes attend the awards. It does not follow, however, that emulation is to have no part in stimulating to effort. This would be condemning the wisdom of the Great Giver of the human mind, with all its motives, impulses and desires. It rather shows us the necessity and duty of training those under our charge to overcome or regulate their selfishness, to look with a generous sympathy upon a successful rival, and, having done what they could to secure the prize, congratulate the winner on his victory, and apply themselves, with renewed diligence, to another trial. We should direct them to look out upon the world, where competition exists in every form ; not only at the tournament, in the race, the combat, the wrestle, — but at the forum, on the mart of trade, in the studio of the artist, in the observatory of the astronomer, by the midnight lamp of the poet, the historian and the philosopher. All cannot win, but all can " try again ; " can " learn to labor and to wait" the result of a second trial ; — nay, to endure, if it must be so, another defeat. The prize that *man* can bestow is not the greatest good of life. There will be found some other and some higher boon. The fault is in him who repines, rather than in the system that bestows prizes on the most skilful or meritorious. What incessant moanings would fill the air of all populous regions of the world, if the unsuccessful aspirants for honors, place or wealth, should give audible expression to disappointed feeling, as their more fortunate neighbors present themselves to their sight, or to the eye of their imaginations ! No doubt suffering, to some extent, is endured, both in and out of school, from contemplating, at one view, one's own failures and another's success. But is it not self-inflicted ? Cannot its first approach be repelled by a little reflection of the well-balanced mind ? And are not self-inspection, self-discipline, and self-control, as important departments of early education and culture, as any to which a parent or a teacher may apply himself ?

There are those who not only condemn the whole system of school rewards, but who denounce, in no measured terms, the act of our country's wisest philosopher, BENJAMIN FRANKLIN, for making provision in his will for a yearly distribution of medals to the most deserving pupils of the public schools of his native town, where his active mind received its first school-instruction.

He says, in his will devising the legacy: "I was born in Boston, New England, and owe my first instructions in literature to the free Grammar Schools established there. I therefore give one hundred pounds sterling to my executors, to be by them, the survivors or survivor of them, paid over to the managers or directors of the free schools in my native town of Boston, to be by them, or those persons or person who shall have the superintendence and management of the said schools, put out to interest, and so continued at interest forever; which interest annually shall be laid out in silver medals, and given as honorary rewards, annually, by the directors of the said free schools, for the encouragement of scholarship in the said schools belonging to the said town, in such manner as to the discretion of the selectmen of the said town shall seem meet."

This donation, and another for the encouragement of industrious young mechanics, were "gratefully accepted" at a public town-meeting, held in Faneuil Hall; and a committee, appointed by the meeting, subsequently reported that, "Every step to carry into full effect his [Franklin's] benevolent plan will be cheerfully pursued by those whom he was pleased to constitute his trustees, and rising generations will for ages bless the name of their illustrious friend and benefactor."

The beneficial effects of the Franklin donation have often been acknowledged by those familiar with the Boston public schools; and the following remarks on this point were made by Mayor A. H. Rice, chairman *ex-officio* of the schools, at the inauguration of the Franklin Statue, September 17, 1856:

"Among the recipients of these tokens have been many who obtained honorable distinction in after-life, and thus fulfilled the promise which attended the success of their first intellectual efforts; and how many others have been led to positions of usefulness and honor, who might have fallen far below their actual attainments, without the stimulus which these little mementos have afforded, can be estimated best by those who appreciate that common attribute of our nature, which, especially in the young, requires something more than the consciousness of accomplished duty as an incentive to protracted exertion. How full of deep suggestion and touching pathos is the spectacle which has been exhibited to-day, of the recipients of these honorable tokens, marching in lengthened column, section after section, year by year, in consecutive generations, covering more than the ordinary life of man, each one adorned by the trophy of his youthful toil, and bearing before the image of his benefactor a life-long tribute of veneration and gratitude!"

As no provision had been made in Franklin's will for medals for girls, the Boston school committee, in 1821, voted an extension of the plan, so that the girls in the Grammar Schools might be included in the distinction; and they have annually, since that time, with the exception of the year 1847, received medals denominated "City Medals," *for good behavior and scholarship.*

The Franklin medals have been distributed to boys — three to six in a school — from 1792 to the present time; and have been of incalculable service to these large and popular institutions, in awakening and keeping alive a desire to excel, and stimulating the pupils to effort. Great care is taken to have them awarded according to desert, and seldom has there been any cause to complain of injustice. It has often been difficult to decide between the claims of two candidates of apparently equal merit, and in such cases both have usually become recipients. With the infirmities that attach to human beings, it is not certain that perfect justice has invariably been done to candidates; but no pains have been spared to avoid injustice. In some few instances, sensitive minds, it is affirmed, have been deeply wounded; but this generally arose as much from the keenness of their sensibility, as from any defect in the system of distribution, or mistake in the decision of the judges. And are not parents in some measure responsible for this weakness in their offspring? Should they not, from an early period of life, train them to habits of mental endurance, and thus fit them, by all of intellectual vigor that they can develop or infuse into them, for the struggles that await them?

Original differences exist, it is true; but is it not equally true that circumstances modify the mental, as well as the physical character of individuals?

The great sagacity, shrewdness of observation, and familiarity with the operation of human motives, possessed by Dr. Franklin, would seem to be a sufficient guaranty of the propriety and safety of the use of these incitements to duty in school. By the consent of the nations, he has been considered as one of the great lights of the world in modern times. He stood as an arbiter of the destiny of his country in its great day of peril. He aided in leading her out of her darkness and poverty in her hour of need, and conducted her to light and liberty. His maxims are held as oracular wherever the English language is spoken, and comprise a safe and almost complete manual for the conduct of affairs in every station in life.

If endorsers of the propriety of Franklin's gift were wanted, they could be found in multitudes among the members of the "Franklin Medal Association," with its gifted president* at their head; whose views on the subject have recently been given to the citizens of Boston and Philadelphia, — in his admirable address on "Franklin, as a Boston Boy," — prepared for the anniversary of the doctor's birthday, the present year; which views were essentially the same as have been unfolded in this letter, and which the writer has held for nearly half a century.

The mode and conditions of the distribution of medals in schools admits, I think, of modification, by which their benefit would be augmented, and the objections to them obviated. Medals and other rewards have been awarded annually at the school with which I was connected, from the time of its establishment, in 1828, to the present day, and continue to form a part of its machinery of discipline; and, in thirty years, I am not aware that they ever occasioned a tear to fall, or the slightest unhappiness to be felt; — the cause of which, probably, is the fact that there was no individual competition connected with their acquisition.

There were several grades of these medals, which were bestowed as a matter of contract, the evidence of which every pupil had in his own possession, in his weekly reports, and by which he could claim, as on a note of hand. He was told, at the beginning of the year, that if he should be constant and punctual in his attendance at school to its close,— if he committed no misdemeanor — "deviation" as it was called — or infraction of school-laws, he should receive a silver medal of a certain grade; — this, irrespective of scholarship; and hence, giving that prominence to good behavior, to which it is ever entitled in the fitness of things, and encouraging every grade of mind to effort. If he was, as above, correct in deportment, punctual, and constant in attendance, and had but few deficiencies in lessons, &c., he would receive a silver medal of a higher grade. If his merits were still more obvious, and his lessons *generally* perfect, the highest silver medal was awarded him. If wholly without fault in these particulars, adding thereto entirely perfect lessons for the time, he should receive a gold medal. And these were bestowed, at the Annual Exhibition at the end of the year, to all — few or many — that complied with the terms. The grades of the medals have recently been increased in number, to six in all — gold and silver — to make them more equitable, according to the amount of school-labor performed. Thus, perfect deportment and perfect lessons in the English department are entitled to a gold medal; but these, with the addition of the successful study of one more language, claim a higher reward, or gold medal of superior value; which the super-addition of two or more languages successfully pursued, raises to a claim for a gold medal of the highest grade of all.

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* Hon. Edward Everett.

This system has proved to be a very efficient instrument in the promotion of order, diligence, self-control, good-humor and good manners. A satisfactory degree of zeal has been enkindled, and is perhaps kept alive in the pupils' minds by personal considerations, — although the *hope of reward* is seldom, if ever, adverted to by the teachers, — they appealing, on all proper occasions, to the highest motives for manly effort.

The present condition of this school may not be considered as conclusive proof of the propriety or success of this system of rewards; but it may not be amiss to state the fact that, although the school is private, unendowed, and unincorporated, and is over thirty years of age, it has flourished from the beginning, and never more than now, — having an excellent corps of (nine) teachers, and upwards of two hundred pupils in its ranks.

Finally, until the human mind shall have undergone some radical change in its elements and operations, rewards will continue to be an essential means of exciting the young to the ready and cheerful performance of duty.

There is another subject which has recently attracted much attention among the friends of schools and other philanthropists; most of whom have, as I think, indulged in a one-sided view of it. And these are the same individuals who condemn the use of school-rewards. With an occasional exception, they are men of *theory*, who look at the matter through the optics of their sympathies and benevolence, — and this from their closets; having little or no practical acquaintance with the supposed evil they deplore. Otherwise, they would receive with distrust the representations derived from partial sources, or made by incompetent judges. This is an error into which a zeal for reform often leads its votaries — driving them to unreasonable extremes. Many persons, under such circumstances, with an honest purpose and noble enthusiasm, — forgetting that "one swallow does not make a summer," — take for granted that, a single pupil having been injured, or *reported* to have been so, by excessive study, — while five hundred pupils escaped unharmed, under the same course, — the whole system of school-lessons, and especially if learnt out of school, is and must be wrong, and should be condemned and universally discarded.

It is, however, a remarkable fact, that few *teachers* of experience and judgment, give any practical heed to the attempts of these so-called reformers. Being in "loco parentis" to their pupils, they feel their responsibleness, and are guided by their knowledge and their consciences, in the treatment of the individuals of their charge. If they were to discover that the children were suffering from excessive application, they would, doubtless, be the first to apply the remedy. Of this I can speak from personal knowledge; and am willing to affirm that, in one institution at least, the amount of out-of-school study was limited to an extent that could not injure the student; while a standing rule existed, both in school and out, prohibiting all labor on lessons, the moment that the eyes began to suffer, or the head or brain to ache. Nor can an instance be recalled, in which these evils or affections of the nerves were induced by excessive study, with the consent of the teachers. Mistakes may sometimes occur; no doubt they have occurred, and will happen again; but I have the most implicit belief that, as a general thing, teachers of schools feel a tender regard for their pupils, are desirous of their welfare, and watchful of whatever pertains to the health of their bodies as well as the improvement of their minds.

Builders of school-houses, at the present time, are solicitous that these structures should be arranged on the most philosophical principles, — to promote the health and comfort of those who are to occupy them, — in the matters of ventilation, the proper degree of heat, commodious desks, chairs, &c.; while the public supervisors are watchful to carry out the contemplated plans. At no time in the history of the country has so much been done, in nearly all the States in the Union, to promote the comfort of children in schools, as now. For these reasons I have been induced to offer these remarks, as a reply in part to complaints, which, unnoticed, might be thought, by those who should not investigate the charges, to be well founded, as against a universal evil in the schools. And, still further, I wish to avail myself of this opportunity of presenting to the readers of the Journal the following sensible extract from the Annual Report, for 1858, of the present Principal of Chauncy-Hall School; in which the subject under discussion is judiciously treated, and suggestions made, which, if adopted in practice, would probably cause the evils referred to, to disappear from the land, while an incalculable good to all ages and classes of persons would be introduced among us. I cheerfully endorse every sentiment in it, and recommend its perusal to every parent under whose eye it may fall.

"The danger of overtasking the young mind and body by our present systems of education, has formed an exciting topic of discussion in our community, during the past year, and a few remarks upon it may not be inappropriate here. It is difficult to speak of what is done in other schools, or to judge of the effect of systems and arrangements, of which the direct working is not seen; but a few facts and deductions from personal reminiscence and experience, may throw some light on the subject.

"If confinement is one of the elements injurious to the pupil's health, there has been a great change effected in his favor during the last twenty years. The vacations have expanded from about four weeks to eight, nine, and, in the private schools for girls, to thirteen or fourteen weeks. Instead of protracting his studies far into the dog-days of August, the scholar may be sent to enjoy the renovating influences of the country in the month of July. Single holidays are much more numerous, both stated and occasional, giving pleasant respite from toil. School hours, too, have been essentially shortened; formerly seven hours a day were devoted to school in summer, while five or five and a half are now the limit. Nor is it a fact that so much more is accomplished or attempted either in or out of school, as has been frequently asserted, and is, perhaps, generally believed. Scholarship existed twenty years ago, and scholarship did not come without labor both in and out of school. It was not supposed that any valuable mental acquisitions could be made without working for them. The Latin and Greek Grammars had to be mastered, and about the same amount of preparatory study gone through by the boy who was intended for a collegiate education. At a somewhat earlier period, between the years 1820 and 1830, it was customary for many of the pupils of the Latin School in this city, to attend private intermediate schools between the morning and afternoon sessions, in order to give more attention to Writing, Spelling, Reading, &c., than the course at the public institution permitted. The writer well remembers rushing in hot haste from the old Latin School-house in School-street to the neighboring shades of Harvard Hall, to spend two additional hours; and never sees his venerated teachers of those days without internally thanking them for what they required him to do in this double process of school education. Many of the boys of that day still live to bear witness that they were not crushed by the labor, and, in fact, did not feel themselves particularly aggrieved by it. They, as well as their parents, accepted school and its requisitions as a sort of fate, not to be struggled against or repined at. If the advantages were wanted, the price was to be paid.

"Boys were, undoubtedly, sick in those days, as they have always been, whether in school or out of school, in city or country; but their sicknesses were referred to natural causes. That there was less of a low and feeble state of the system, is probably a fact, for which abundant reasons exist in the modes of life and of bringing up children now prevalent. The popular error seems to lie in making school responsible for what results from other causes, and in supposing that health and vigor would exist if school and its requisitions were out of the way. Certainly some forms of life and occupation can be imagined that would give a higher degree of health and strength than any city or sedentary pursuit. But can these be obtained, as a general thing, by boys considered feeble or delicate, even supposing they had sufficient stamina to embrace them? Cut a boy off from school in a large city or its vicinity, and what is to become of him? He will be obliged to lounge listlessly at home the greater part of the time, absolutely suffering for healthy mental occupation; or, going abroad to seek companions or excitement, he is liable to form associations of the worst class, or to yield to the many temptations that present themselves on every side. Seldom will a greater amount of air and exercise be taken than might be enjoyed in connection with attendance at school; while habits of application and regularity may be irretrievably injured. It is to be hoped, therefore, that the parents of feeble children will try the other means in their power of improving their health, before depriving them of the great advantage of early training and instruction, and not continue in a permanent state of dissatisfaction with school, as if it were necessarily a hardship or deleterious influence. Before we can see a general and high state of health in our schools and universities, there must be a change in the habits of our community, and in nothing more than in the prevalent modes of bringing up children. The influences of climate, so much dwelt upon by medical writers, we shall have to bear. If we suffer from being an unacclimated race, it will take many generations to bring about a change; we can only resist its influences by such means as are in our power. More simplicity, more hardihood, more true manliness, are wanted in both young and old. Luxury and effeminacy are fast unstringing both the bodily and mental nerves of that portion of our people considered the most highly favored.

"Where circumstances do not compel the practice of self-denial, resolution and perseverance, to overcome the physical necessities of life, those stern teachers which have developed so many strong and manly natures, education must aim at a similar result. Simplicity of food and clothing will have as favorable an effect upon the children of the rich, when enforced as a matter of principle, as if compulsory. The early hours and habits of steady labor of the children of toil, can be imitated by those who have the privilege of practising them in furtherance of the nobler object of gaining an education. Where the desire for play does not lead to habits of healthy exercise, it is the duty of parents to see that it is taken in some of those forms which even city life admits. The use of tobacco and other hurtful stimulants must not be learned. In fine, the body must be made to keep its place and do its work as a good servant, and not pampered and flattered till it leads the mind whithersoever it will, and compels it to do its bidding.

"In accomplishing these objects, parents will find, that, if they add example to precept, the effect will be greatly increased. It is of little use for a full-grown man to talk to a child of the importance of air and exercise, if he never stirs from the fireside or the desk. It is his part to lead the way in the good path. A father who takes his son to walk, to ride, to row, to swim, to skate, shows that he believes what he preaches, and is disposed to reap the benefits of exercise in his own person. So, too, in abstinence from injurious practices. It is of very little use to reprobate the habit of smoking, for instance, and yet set the example of it himself. It is one of the responsibilities of paternity, that cannot be shaken off or got over, to *do* the thing that we wish the child to *learn*. Anything short of this, so far as circumstances permit, is less than the duty of a father.

"These remarks are equally applicable to the weightier matters, affecting not merely the outward well-being, but the spiritual welfare of the child. He must be directly taught those things which lead to eternal life, and guided into the narrow path, by parental example. The channel of communication must be kept open, and the workings and tendencies of the young soul not suffered to hide themselves. The watchful parent will make himself acquainted with the good and evil tendencies of his child, and will make it his first duty to cultivate the one and restrain the other."

CATECHISM

ON

METHODS OF TEACHING.

4 A

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CATECHISM ON METHODS OF TEACHING.

TRANSLATED FROM DIESTERWEG'S "ALMANAC," (*Jahrbuch*,) FOR 1855 AND 1856,

BY DR. HERMANN WIMMER.

I. INTUITIONAL INSTRUCTION, (*Anschauungsunterricht*,) BY A. DIESTERWEG.

1. *What is the object of intuitional instruction?*

To prepare the child who has just entered the primary school, for formal school instruction.

2. *What is therefore its external position in the course of instruction?*

It forms as it were the bridge from the liberty of home life to the regular discipline of the school; it is in regard to instruction, an intermediate between home and school.

3. *What is to be effected by it?*

The children are to learn to see and to hear accurately, to be attentive, to govern their imaginations, to observe, to keep quiet, and to speak distinctly and with the right emphasis.

4. *With what objects must this preparatory education deal; having in view a "formal" aim, but no acquisition of knowledge?*

Perceptible or perceived objects; hence its name. It has a two-fold meaning; real observation by the senses, especially by eye and ear,—and such management, by the teacher that the objects, their qualities and conditions, are made vivid interior perceptions.

5. *By what do we know that its end is attained?*

By the whole appearance of the children, and particularly by their correct and proper speech and pronunciation, which can not be valued too highly from the first beginning.

6. *What is the beginning of this instruction?*

After a conversation about father and mother, to gain their confidence, and after some directions concerning the mode of answering and behaving in the school-room, the first thing is to observe the room and its contents. The pupil is to be made acquainted with all around him; he must learn to see, to name, and to describe exactly, all objects in the room.

7. *What must be chiefly attended to from the first day?*

(*a*) A clear, emphatic statement in complete sentences. E. g. What sort of thing is this? This thing is a chair, etc.

(*b*) A comprehensive view of all qualities observed in an object, at the conclusion of each exercise. This is of the greatest importance in all instruction.

8. *What is the second step?*

Observation of the whole school, school-house, road, village or town, in their external qualities.

9. *The third?*

Observation of some of the animals in the place, and of man.

10. *What next?*

This depends on circumstances. In general, it may be said, that the result of this instruction may be secured by from four to six hours a week during the first year. The duller the children are, the longer it must be continued. It may be further extended to the trees and plants of the neighborhood, the trades and employments of the people in the place, clouds, weather, wind, fire, water, sun, moon, stars, etc.; in short, to all objects accessible to real observation. Accurate contemplation or description of models of mathematical bodies may also be very advantageous. The teacher should draw the streets and houses of the place before the eyes of the pupils on the blackboard; he may resort to "*Stäbchenlegen*," (laying down small sticks; see Diesterweg's *Kleinkinderschule*, (Primary School,) fifth edition, and Stangenberger's book;) he may use the picture tables; in one word, he may arrange any variety of useful exercises to attain the important end. It is least possible in this branch, to prescribe in books a regular and equal course to all.

Of the greatest importance, we may repeat, is the way in which the children speak and pronounce. A teacher who is unmindful of this, prepares trouble for his whole professional career. Instruction in teaching, if the teacher understands it, is at the same time instruction in language. It is not, however, instruction in grammar; yet it leads to the understanding of the language, and to attention to words and expressions in general. Not only the nouns, adjectives and verbs, but the prepositions and conjunctions also, should be managed without the mention of their names, but by using practical examples of them. It is not the object to explain these words, but to use them correctly by means of a variety of exercises.

The best manuals for the Intuitional Method direct such instruction, and the teacher shows his skill in the suitable choice of objects, and especially in the varied and attractive treatment of them. Less depends on the selection of what is to be discussed, than on the way in which the attention of the children is secured. If the proverb "Every way is good except the tiresome" be true any where, it is true here. As soon as the children get tired, the subject must be dropped. Success depends entirely on the activity of the children. This is true, indeed, of all teaching, but preëminently so where knowledge and technical ability are not aimed at, but only an awakening of the slumbering faculties, a "formal" end. Attention, liveliness, a desire to observe, and to answer, etc., are the measures for judging of success.

If the result is secured, i. e., if the pupil is prepared for learning, the teacher leaves this instruction and advances to study proper, which is likewise intuitional. That is, he proceeds always from facts, from real, undeniable and undisputable facts. The importance of this principle is not yet enough understood, nor has the subject been exhausted by teachers or educators.*

II. Instruction in Reading, by Honcamp.

Reading Writing together (Schreib-Lese-Unterricht.)

1. *Shall the first instruction in reading be begun in connection with the first instruction in writing?*

Most certainly, for reading and writing are most intimately connected.

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* Harder, in his manual, (Altona, 1853,) differs from these views so far as he makes this instruction the basis of real instruction, and likewise real instruction itself. "But where matter dominates," says Kalisch, "pedagogical management and general cultivation is at an end; for to the teacher, matter is secondary."

2. *Was instruction in the former separated from the latter in olden times?*

From ancient times writing was accompanied by reading; but not until modern times, (since Graser,) has reading been connected with writing, in all its steps.

3. *Is this method according to nature?*

It is natural, because reading and writing are properly but two different sides of the same thing, i. e., of the written language.

4. *But is it not easier, first to practice the one, and not to practice the other, until the greater difficulties of the former are mastered?*

Quite the contrary. Reading and writing assist each other mutually, and experience teaches, that the first instruction in either, is made more efficient by their union.

5. *In what way shall they be connected?*

The teacher can either (analytically) view the spoken word as a sound, and then have it (synthetically) represented by the signs for the sounds, i. e., the letters, in which case writing is prior; or he may first view the written (printed) word as a representation of the sound, (analytically,) and then have it (synthetically) reproduced by pronouncing or reading—in which case reading is prior. We have, therefore, either a *Lese* (reading)-*Schreib* (writing)-*Methode*, or a *Schreib-Lese-Methode*,—(Writing-reading-method.)*

6. *What may be said in favor of the reading-writing method?*

Writing always precedes reading; the inventor of writing did it for reading's sake; he wrote first, and then he read. Hence, instruction in reading must be joined to instruction in writing.

7. *What may be said in favor of the reading-writing-method?*

In answering this question we take, not the place of the inventor of writing, but of him to whom he first communicated his invention; the inventor taught him first to read and then to write, and in like manner, according to nature, we must proceed now.

8. *Which method is to be preferred?*

It is nearly indifferent, either in regard to subject or result, whether we put the pupil in the more artificial place of the first inventor, or in the more natural place of the first pupil.

9. *What rules must be observed in the adoption of either?*

Reading and writing must always be intimately connected; the elements of the word must be found by analysis, and made the basis of study; and only such words and syllables must be read and written, as have a meaning for the pupil.

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* **Reading is always analytical, writing synthetical; but the method of teaching may be different. If reading be separated from writing, the proceeding may be**

(1,) Synthetical; where the letter is given, and with it either (*a*) the name of the letter without the sound—*buchstabirmethode*, spelling method; or (*b*) the sound (*laut*) of the letter without the name—*lautirmethode*, phonetic method; or (*c*) the sound and the name of the letter, spelling and phonetic method combined, (*Wilging's, Kawerau's*;) or

(2,) Analytical; where the pupil reviews the written (printed) matter as a whole, that he may resolve it into its elements. The whole is (*a*) a proposition or sentence, (Jacotot's method;) (*b*) a word, (Gedike's method;) or

(3,) Analytico-synthetical; the child, to become prepared for reading, is made to resolve sentences into words, words into syllables, syllables into sounds, and then the teacher proceeds by the combined method. See Jacobi's book on these methods; also Honcamp's "*Volksschule*," No. 10, p. 20.

In the *Schreib-Lese Methode*, (and vice versa,) it is well to give also the *name* of the sound and letter.

10. *Is it not requiring too much of a child, who has not yet mastered the mechanical part of reading, to ask him to think of the contents and understand what he reads?*

Not at all; for word and idea are one, and speaking and thinking are not to be disconnected. "Given the word, to think of its meaning," is not an operation which the pupil has to learn; he does it of himself and has always done it. But to speak, without joining an idea with it, the pupil has to learn, and that too in order to unlearn it afterward with much trouble.

11. *Why is it important never to read meaningless syllables and unintelligible words?*

Because the pupil will read in future as he is taught to read; therefore, he ought to get accustomed from the beginning to seek in all that he reads a proper idea. Every thing not essential, particularly all that would embarrass the first instruction, should be put off to a later time. It is not necessary to proceed from the easier sounds to the more difficult, for the child pronounces all with equal facility; but it is good to begin with the easier letters, so far as their form is concerned, for example, o, i, s, f.

Reading by itself.

Reading may be divided into (1,) mechanical; (2,) logical, (intelligent,) and (3,) æsthetical, (feeling.)

12. *Are these grades strictly to be kept asunder?*

No; reading must never be merely mechanical, without regard to the understanding; with logical reading, mechanical ability ought at the same time to be advanced; nor should reading ever be without feeling; and with æsthetical reading, both the mechanical and the logical processes should be practiced. The first belongs, in a common school, to the lowest class; the second, (logical,) to the middle, and the third to the highest class, i. e., they are proëminently to be attended to in those classes.

13. *Wherein consists the mechanical ability of reading?*

In a quick survey of the written or printed matter, and in the ability of representing a row of letters by the right sounds, syllables and words.

14. *How is this ability best acquired?*

By frequent class-reading, which must alternate with single reading, so that the former is always preceded by the latter, which must serve as a model. Single words and sentences are to be repeated, until they are readily pronounced. The teacher, by his accompanying voice, directs as to right pronunciation and accentuation.

15. *Wherein consists logical reading?*

In that the understood contents of a piece are emphasized in conformity with that understanding.

16. *When does the pupil understand the contents?*

When he knows the meaning of the words, and the meaning of their relations in the sentences.

17. *When does he understand the meaning of the words?*

When he knows the signification of the derived and compound words by the meaning of their elements, and when he well distinguishes between the proper and the figurative meanings of the same.

18. *Should the exercises in the formation of words, and such as help to understand the rhetorical figures, be practiced in the reading lesson?*

They should be combined with grammar, and occur in the reading lesson only so far as is necessary for understanding the words.

19. *When does the pupil understand the relations within the sentence?*

When he knows how one conception (of a word) refers to another; the different conceptions (words) to the speaker; one idea to another; and the different ideas to the speaker. It is sufficient for the pupil to understand these relations without having a conscious insight into them. An analysis of the conceptions and expressions belongs to the grammar, not to the reading lesson, in order not to spoil the pupil's enjoyment of the contents, etc., etc. (The rest has more particular reference to the German language.)

III. ARITHMETIC, (*Rechen-Unterricht*,) BY A. DIESTERWEG.

1. *What has brought arithmetic into the common school?*

The wants of daily life—material necessity. Its introduction was historically the first of those which caused a change in the organization of schools. (Rabanus Maurus, in the ninth century, recommended arithmetic and geometry, because they open mysteries, because the Bible speaks of cyphering and measuring, because we learn by it to measure the ark of Noah, etc.)

2. *Is this the only reason why the present common school teachers retain this instruction, and consider it indispensably necessary?*

Not at all. They have recognized in the right treatment of number, and of its application to daily life, an excellent discipline of the mind; the formal object is added to the material one.

3. *How do they compare in value?*

The formal object has the preference; in no case is it to be subordinate; the development of the mental powers is in every school the chief point. But they do not exclude one another; quite the contrary. The formal end is attained just so far as the matter to be understood is worked through.

4. *What motives decide on the choice and arrangement of the matter?*

First, the "formal" motive; i. e., regard to the mental nature of the children, the laws of human development; and especial regard to the individual nature of the learner; next, various external circumstances—differences of place and time, and of schools. The first motive is universally the same; it dictates the *management* of the number; the second directs the *application* of the number, or calculation.

5. *How far ought all to advance in arithmetic?*

The maximum can not be stated; nor the minimum either, at least in regard to the degree of formal development. It remains to point out the material minimum, and this requires every child to be able to solve the common problems of every day life. It is neither necessary nor possible, that all scholars should reach the same point.

6. *What is to be thought of prescribed rules and formulas?*

They are to be entirely annihilated. No operation, not understood in its reasons, should be performed, or learned. The scholar must be able not to demonstrate mechanically each operation, but to give the simple reasons which justify it to the mind. The right deductions from the nature of the number and of its relations, are to prove its correctness.

7. *Wherewith must instruction in arithmetic begin?*

With the numbering of real objects, (cubes, little rods, fingers, etc.)

8. *What inductive means are next employed, and how long is their use continued?*

The teacher next proceeds to the use of artificial means, as lines, points, cyphering rods, Pestalozzian tables, etc., and continues to practice the simple changes of number with them, until the pupil has a perfectly clear idea of the numbers and of their quantities.

9. *What next?*

The teacher advances to the use of figures.

10. *What is the treatment of the number, with and without figures?*

The latter always precedes the former; the written or slate arithmetic every where follows mental arithmetic. Not only does the cultivating power of arithmetic lie in the insight into the relations of number, but also the wants of practical life demand preëminently skill in mental arithmetic.

11. *Upon what chiefly depends that skill?*

First on the ability in handling the decimal principle, (*Zehnergesetz;*) then on the ability to compare and analyze numbers.

12. *How do the exercises with so-called "pure," and with applied numbers, compare?*

The former always precede; application presumes ability in treating the pure number. This being attained, questions, problems and exercises follow; together with denominate numbers, and their application to life.

13. *Are the exercises with numbers from* 1 *to* 100 *to come in order after the four rules, (addition, subtraction, multiplication, division?)*

No. All operations ought to be performed successively with these numbers; the regulated uniformity of the operations comes later. (Grube, Schweitzer, etc.)

14. *Shall fractional arithmetic be entirely separated from instruction in whole numbers?*

No. No. 13 forbids it, and makes it impossible; even considered in itself it would be improper.

15. *Which points must be distinguished in practical problems?*

First, the understanding of the words.

Second, the relation of the question to the statement, or of the thing required to the thing given.

Third, the understanding of the way in which the unknown number depends on the number given.

Fourth, the finding of the unknown number from the given number; that is, the calculation, oral or written.

16. *What has the teacher to do in these four processes, when the pupil can not proceed of his own strength?*

In the first, the understanding of the words and things in their relations must be explained, and often directly given.

In the second, what is required must be well distinguished from what is given; the propriety of the question must be accurately considered.

The third point is to be brought out by means of questions from the teacher.

The fourth is an affair by itself, and is the pupil's concern.

An exercise is not complete and satisfactory, until the pupil is able to explain these four points, one after another, orally, and without any aid.

The teacher leads by questions, (by analysis;) the pupil proceeds by synthesis. The former proceeds from what is sought, the latter from what is given.

17. *How is talent for arithmetic to be recognized?*

Besides what has been said in No. 16,—by the independent invention of new methods of solving the problems, of peculiar processes, etc.

18. *In what way may uniformity in arithmetical instruction be gained?*

By solving each problem rationally, according to the peculiar nature of the numerical relations occurring in it, and consequently, without admitting any external rule or formula, which on the contrary ought to result from the subject itself. Uniformity lies in the rational, transparent treatment, and, therefore, in the mind, not in the form. Good rules, etc., are not indifferent, but they must follow the observation of the thing.

19. *Which is the most simple, natural and appropriate form of managing the problems externally?*

Not the doctrine of proportions; it is too artificial, and too difficult for the common school; nor the chain rule, etc. The best form in slate arithmetic for the common school is the so-called "*Zweisatz*," the fractional form, (*bruchform*,) which every where requires reflection. (Scholz.)

20. *What is the value of the so-called "proofs" and abbreviations?*

The proofs are, with a rational method, superfluous; the latter are of little value. A well guided pupil finds them out himself, and if, in the highest class, some of them are pointed out to him, their origin, and thus their correctness, must be demonstrated at the same time.*

IV. GEOMETRY, (*Raumlehre*,) BY A. DIESTERWEG.

1. *Is geometry required in the common school?*

No doubt, for it teaches the *forms* in which every thing appears; the shape of matter and the laws of those forms; the laws of space and of extent in space; the dependence of magnitudes and forms on each other.

2. *Why is such knowledge considered as a requisite for general cultivation?*

Because the whole mass of bodies, the universe, as well as man, exists in space; because without the knowledge of the qualities of space, man would be ignorant of that appearance of things which belong to their inmost nature; because geometry teaches how to measure lines, surfaces and bodies, which knowledge is very necessary; because without it man could not divine, that the distance and size of the sun, moon and stars, could be determined; and because he would even have no idea of the extent of his own abode, and of the mathematical, i. e., fundamental qualities of the same. All this is consequently requisite for general human cultivation, not to speak of its practical value, as well for female as male education, and therefore for the common school, the school of the people. Without it, not the most indispensable part, but an essential part, of education is wanting.

3. *What elements of geometry are to be taught in the common school? and in general what parts of it may be considered there?*

Space admits of "intuitive," (*anschauliche*,) and a demonstrative, (*begriffsmaessige*,) observation.

The intuitive faculty of man perceives immediately objects in space, bodies in their qualities and forms; with the sense of touch he perceives what opposes him in space, the body and its external form; the sense of sight assists him, by determining extent and distance, and by comparing and measuring them. These are operations of *external* intuition. The intellect abstracts the *differentia* of the bodies, and fixes the pure, mathematical form; and thus aids the *interior* pure, or mathematical intuition. Moreover, the logical intellect, perceiving the dependence of magnitudes on each other, their mutual conditions, the inference of the one from the other, deduces and concludes.

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* No school can do without an arithmetical text-book. Hence it sufficed to give here the principles. These contain the measure by which we have to judge of the value of the text-book.

The intuitive part of geometry is that elementary part which is proper for the common school. But thereby is not meant, that the pupils should not learn the dependence of one thing on the other; this even can not be avoided, it comes of itself; but according to the degree of ability, quicker and deeper with one than with another, and one school will make more progress in it than another. But the power to be immediately employed is the faculty of observing—first, the exterior, and then, and preëminently, the interior. The conclusions connected with that observation result therefrom spontaneously; the intellect works without being ordered. Therefore, in geometry, as every where—a fact, ignorance of which, causes much merely repetitious and lifeless teaching, as well as intellectual dependence and immaturity—the teacher ought to lead the scholar to immediate, true and vivid perceptions.

The strict or Euclidean geometry, with its artificial proofs, is not fit for the common school, nor does it prosper there.

4. *What is more particularly the subject of geometrical instruction in the peoples' school?*

The qualities of (mathematical) lines, surfaces and solids.

5. *What method is to be pursued with it?*

The point of starting is taken in the physical body; and from this the mathematical one is as it were distilled.

The order of single precepts or propositions is, as has been said, as much as possible *genetical*. Pedantry and anxiety are here, as every where, prejudicial. The method, always intuitive, requires originality, i. e., the evolving of every thing learned from some thing preceding; aims at immediate spontaneous understanding of one thing *through* the other.

6. *What is the immediate purpose of this instruction?*

To understand the qualities of lines, plains and bodies; to measure and calculate them.

7. *What instruments are used by the pupil?*

Pen and pencil, for drawing; compass and scales, for measuring; the usual measures of lines, surfaces and bodies, for calculating.

V. Natural History, by Ed. Hintze.

1. *What method should be used in teaching natural history?*

The method of instruction is the mental development of the pupil by means of the material development of the object. The method is, therefore, essentially a *process* made by the teacher. Since there can be but one such development, there can be but *one* method.

2. *Which is that true method?*

The one true method is named from the principle contained in it; it is the developing method.

3. *Wherein consists this developing method?*

In development there are three steps; observation, (*anschauung*,) conception, (*vorstellung*,) and generalization, (*begriff*.) Such is the progress of the method. Every where teaching begins with *facts*, and therefore in this case with the observation of natural objects. Of these, individual action and growth must be shown, and the general law of nature thence inferred. In this way and only in this, the pupil is taught according to nature, since he proceeds from immediate observing and knowing to perceiving and understanding.

4. *What mode of teaching is to be used?*

That one which develops by questioning, (*die fragend-entwickeldnde.*)

5. *Is this mode practicable in all three courses, (set down by Hintze elsewhere with regard to the capability of the scholars)?*

In the first course, questioning is predominant; on the second, "*der vortrag,*" i. e., proper teaching and explaining must be joined with it; on the third again, questioning predominates. In all good instruction questioning is predominant, and with it conversation with the whole class.

6. *What have we to think of lecturing?*

Lecturing is no form of instruction at all; it is a rocking chair for teacher and pupils; the former has easy work, whilst the latter stare and dream.

7. *What ought to be required of the pupils?*

Their first and chief object must be to learn to *see* right; then follows right reproduction; and the necessary result is right understanding.

8. *What is the value of learning by heart?*

In all instruction nothing must occur which is not understood, and merely learnt by words. One fact well understood by observation, and well guided development, is worth a thousand times more than a thousand words and sentences learnt by heart without understanding. A well guided pupil has nothing to learn by heart particularly; what is understood, is remembered for life.

9. *Shall the pupil use a text-book?*

For natural history it is useless. The good teacher does not depend on it, the bad one has a good means to cover his inability, and the scholar has nothing but a dry skeleton.

The teacher must have mineralogical, botanical and zoölogical collections, and, if possible, a microscope.

10. *What must the pupil do at home?*

Write out and draw what has been treated in school—in proportion to his time—in a brief, concise and neat manner. Besides, the well directed pupil will voluntarily and eagerly occupy himself with nature, look with interest and intelligence at plants, stones, etc., and collect them.

11. *How does an able teacher distinguish himself in this study?*

The able teacher takes pains with his school every where, and particularly in this branch; all energy, punctuality and vivacity, must be applied here, if instruction is not to be a dead and dry mechanism.

12. *What distinguishes a painstaking (strebsamen) teacher?*

The able teacher is found out at school, the painstaking one at home. There are certain branches which are soon done with. But this is not the case with natural history; he who is devoted to it, must follow its own path of progress. The teacher must never cease to study, to make excursions, experiments, collections, etc., to search, to listen, to observe and investigate.

13. *What characterizes the inspiring (geistanregende) teacher?*

He is distinguished by a happy development of sound talents, love of study, and devotion to his vocation. By force of application every one may acquire the necessary knowledge, for nature is every where. If the able teacher shows himself at school, the painstaking teacher principally at home,—there flows from the inspiring teacher every where something that indeed can not be completely gained by study and application; but an earnest will accomplishes a great deal. Besides, it is true, that as under the hands of Midas every thing was changed into gold, so in the hands of an inspiring teacher every thing becomes enlivened. As the creative mind every where works attractively, so particularly in natural history, zeal, application, love and devotion, spring up spontaneously in the pupils.

VI. NATURAL PHILOSOPHY, BY A. DIESTERWEG.

1. *Should natural philosophy be studied in the common school?*

Certainly. Shall the children in the common school learn nothing of weather and wind, of thermometer and barometer, of the phenomena of light and air, of rain and snow, dew and hoar-frost, fog and clouds, lightning and thunder? shall they see the aëronaut, travel by steam, and read telegraphic news, without knowing the how and the why? Shall they remain ignorant of the constituents of food, and of the process of their stomachs and their lungs? Or is it sufficient to read of all this in the Reader? He who answers those questions in the affirmative, is either himself an ignoramus or a misanthrope, and he who affirms the last knows nothing of the way in which real knowledge is acquired.

2. *What do we begin with? and when does the proper instruction in natural philosophy commence?*

As every where, with showing single phenomena, with intuitive contemplation, with oral representation of what has been observed, and reflection thereupon.

We begin with it in the intuitional instruction of the lowest class. The instruction in geography and natural history develops further the faculty of intuition, and in the highest class the proper instruction in this branch commences.

3. *On what portions of natural philosophy are we to lay stress?*

On all such as belong to the knowledge of phenomena, within the pupil's sphere; the knowledge of the most common things is the chief point.

By this principle we make our choice; we omit, therefore, all that is remote, invisible, and incapable of being made visible; all that can be demonstrated only by mathematical proofs; and keep within the field of immediate observation, stops with those things which every one may know by observation and experience, and show such things, as are not obvious, by experiments with simple and cheap apparatus.

4. *What method is to be used?*

To say nothing of the regard for the individual quality of the pupil, the method depends on the nature of the subject, and on the way in which man naturally acquires his knowledge. Every where man is surrounded by natural phenomena; they happen before his eyes. These, therefore, must be opened, in order to observe apprehendingly, to remember what has been observed, to fix the succession of phenomena, and what is common in a series of similar ones; not only to learn the facts, but also the laws by which they happen, and finally, by reflection, to discover the hidden causes.

Natural philosophy belongs to the inductive sciences, i. e., to those which begin with the knowledge of single facts, abstract from them the law of the process, and then in inverse order, deduce the phenomena from the causes.

The way, therefore, prescribed by the nature, as well as the history of natural philosophy, is, that which proceeds from observation and experience to rule and law, if possible, advancing to the cause, (the so-called regressive method.)

5. *What is the aim of this instruction?*

The knowledge of the most essential phenomena, by which man is surrounded, and the ability to explain them, that is, to state in a simple way their causes.

Most important is the knowledge of all that refers to weather, and we expect, therefore, from a graduating pupil, correct answers to the following questions:

What is the temperature of the air in the different months of the year? Which is the maximum and minimum of heat in our country, and when do they usually occur? What is the corresponding state of temperature in other countries? What are its causes? How do the winds originate, where do they come from, and go to? What are the principal currents of air on the globe? Their causes? What weather is caused by the winds in our country? To which winds is our country chiefly exposed, and why? Origin of fogs and clouds? What is dampness? What causes rain? These and similar questions come so near home to man, that it would prove enormous dullness, if he did not ask them himself, and reflect, on answering them. No doubt that such stupidity is still frequent; but no one will doubt what is the indispensable duty of the common school in the premises.

VII. ASTRONOMY, BY A. DIESTERWEG.

1. *Is instruction about the nature of the universe about astronomy, expedient?*

Most certainly; we require the same from every man. To any one who does not admit that this is requisite, I address the following questions: Has that man an idea of the work of the Creator, and of his relation to both, who is ignorant of astronomy? or even, is he a man? No; he is like a brute confined to a narrow sphere, and has not even learned to make the right use of his upright stature, and of his sense for the universe, the eye; he has not enlarged his faculty of observing beyond the smallest compass, satisfied the inborn desire of knowledge, developed his intellect; he might be compared to a mole that closes its eyes to the light. We justly pity the poor man who has had no opportunity to learn the wonders of the starry sky; we despise him, if he has neglected an opportunity; we blame indignantly whatever would prevent his acquiring that sublime and elevating knowledge.

2. *What should every body know of the universe?*

He should know of infinite space, its laws, the qualities of the sun, the moon, and of our solar system, the relation of the planets to the sun, the position of the earth relatively to the same, its rotations and all that result therefrom, as years, seasons, day and night, in short, the substance of popular astronomy.

3. *How is the pupil to learn this?*

By observation—not by books; for from these we get empty words, hollow notions and phrases; books may at best assist the preceding instruction, but they can never replace it—ask among the "educated" people, what ideas they have in this respect, though they have heard of all and can talk of all. The true, vivid and moving ideas of the great subjects in question are exclusively acquired by an intuitive, developing instruction.

4. *What, therefore, is the teacher to do?*

He stimulates the pupil to observations; he makes him conscious of what has been observed, by illustrative questions and conversations; he draws his attention to the sublime phenomena of the sky by day and night; he talks over with him such observations as can be made daily all the year round on sun and stars; he fixes these observations in good order, and in clear, well defined propositions. This is the first step. Scientifically expressed, the pupil advances to the point of view—of what appears to the senses—of *spherical* astronomy.

This point being attained, consideratoly and firmly, (we must know first what *appears*, before we learn what *is*,) then reflection follows, whether the things really are such as they appear. The pupil advances from appearance to essence or nature. This step is very important, not only in astronomy, but in *all* becomes enlivened. As the creative mind every where works attractively, so particularly in natural history, zeal, application, love and devotion, spring up spontaneously in the pupils.

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3. *On what portions of natural philosophy are we to lay stress?*

On all such as belong to the knowledge of phenomena, within the pupil's sphere; the knowledge of the most common things is the chief point.

By this principle we make our choice; we omit, therefore, all that is remote, invisible, and incapable of being made visible; all that can be demonstrated only by mathematical proofs; and keep within the field of immediate observation, stops with those things which every one may know by observation and experience, and show such things, as are not obvious, by experiments with simple and cheap apparatus.

4. *What method is to be used?*

To say nothing of the regard for the individual quality of the pupil, the method depends on the nature of the subject, and on the way in which man naturally acquires his knowledge. Every where man is surrounded by natural phenomena; they happen before his eyes. These, therefore, must be opened, in order to observe apprehendingly, to remember what has been observed, to fix the succession of phenomena, and what is common in a series of similar ones; not only to learn the facts, but also the laws by which they happen, and finally, by reflection, to discover the hidden causes.

Natural philosophy belongs to the inductive sciences, i. e., to those which begin with the knowledge of single facts, abstract from them the law of the process, and then in inverse order, deduce the phenomena from the causes.

The way, therefore, prescribed by the nature, as well as the history of natural philosophy, is, that which proceeds from observation and experience to rule and law, if possible, advancing to the cause, (the so-called regressive method.)

5. *What is the aim of this instruction?*

The knowledge of the most essential phenomena, by which man is surrounded, and the ability to explain them, that is, to state in a simple way their causes.

Most important is the knowledge of all that refers to weather, and we expect, therefore, from a graduating pupil, correct answers to the following questions:

What is the temperature of the air in the different months of the year? Which is the maximum and minimum of heat in our country, and when do they usually occur? What is the corresponding state of temperature in other countries? What are its causes? How do the winds originate, where do they come from, and go to? What are the principal currents of air on the globe? Their causes? What weather is caused by the winds in our country? To which winds is our country chiefly exposed, and why? Origin of fogs and clouds? What is dampness? What causes rain? These and similar questions come so near home to man, that it would prove enormous dullness, if he did not ask them himself, and reflect, on answering them. No doubt that such stupidity is still frequent; but no one will doubt what is the indispensable duty of the common school in the premises.

VII. ASTRONOMY, BY A. DIESTERWEG.

1. *Is instruction about the nature of the universe about astronomy, expedient?*

Most certainly; we require the same from every man. To any one who does not admit that this is requisite, I address the following questions: Has that man an idea of the work of the Creator, and of his relation to both, who is ignorant of astronomy? or even, is he a man? No; he is like a brute confined to a narrow sphere, and has not even learned to make the right use of his upright stature, and of his sense for the universe, the eye; he has not enlarged his faculty of observing beyond the smallest compass, satisfied the inborn desire of knowledge, developed his intellect; he might be compared to a mole that closes its eyes to the light. We justly pity the poor man who has had no opportunity to learn the wonders of the starry sky; we despise him, if he has neglected an opportunity; we blame indignantly whatever would prevent his acquiring that sublime and elevating knowledge.

2. *What should every body know of the universe?*

He should know of infinite space, its laws, the qualities of the sun, the moon, and of our solar system, the relation of the planets to the sun, the position of the earth relatively to the same, its rotations and all that result therefrom, as years, seasons, day and night, in short, the substance of popular astronomy.

3. *How is the pupil to learn this?*

By observation—not by books; for from these we get empty words, hollow notions and phrases; books may at best assist the preceding instruction, but they can never replace it—ask among the "educated" people, what ideas they have in this respect, though they have heard of all and can talk of all. The true, vivid and moving ideas of the great subjects in question are exclusively acquired by an intuitive, developing instruction.

4. *What, therefore, is the teacher to do?*

He stimulates the pupil to observations; he makes him conscious of what has been observed, by illustrative questions and conversations; he draws his attention to the sublime phenomena of the sky by day and night; he talks over with him such observations as can be made daily all the year round on sun and stars; he fixes these observations in good order, and in clear, well defined propositions. This is the first step. Scientifically expressed, the pupil advances to the point of view—of what appears to the senses—of *spherical* astronomy.

This point being attained, consideratoly and firmly, (we must know first what *appears*, before we learn what *is*,) then reflection follows, whether the things really are such as they appear. The pupil advances from appearance to essence or nature. This step is very important, not only in astronomy, but in *all* things, and astronomy, for the very reason that it furnishes the clearest and greatest example of this important progress in human education, is of inestimable value. The pupil learns the nature of the things; his perceiving is raised to knowing. Disorder becomes order, variety uniformity, and chaos rule and law. *One* power reigns in the universe, every thing obeys his laws, and every where there results order, harmony, development, life; and each heavenly body becomes a part of the universe in its infinite sublimity and brightness.

It is worth while, not only to hear or to read of that, but to know and to understand it. The pupils now advance to *theoretic* and the *physical* astronomy.

At last there commences the construction of the whole, at least of our solar system, out of the centre. From the beginning, instruction proceeds from the periphery, from the point on which the pupil stands; the individual is himself the centre, around which every thing is grouped, and to which every thing is referred; the observation is *subjective.* Afterward, it is made *objective*, and man recognizes himself, the human race and the globe, as a part of the infinite universe.

5. *What has the teacher to attend to more particularly?*

This necessary instruction being still uncommon, we may give here several suggestions:

(*a*) He excludes every thing that can not be brought to sight.

(*b*) He goes always from observation and experience over to reflection and deduction. Astronomy is an inductive science; hence teaching follows the inductive method. The teacher does not "*dociren*," (teach or lecture,) he guides; he does not say one single sentence that could not be found by the pupils themseves; for such as can not be found by them—except historical notices—are not fit for them.

(*c*) He fixes the results in the most definite and pregnant expressions.

(*d*) He brings the things observed, thought, spoken of, to view on the blackboard, and directs the pupils to similar representations. But he does not begin with drawing, this is secondary to the finding of perceptions. He employs every where the pupil's imagination; astronomy is an excellent means to lead it on a sure and safe way. Drawing proves the correctness of the ideas, therefore it should not precede. If the pupil makes a correct drawing, it is the surest proof of his having viewed and reflected right.

(*e*) He abstains throughout from any use of models, (telluria, lunaria, etc.) They serve afterward as proof, but they may be entirely done without. Who uses them in the beginning, is wrong; who requires the pupils to transfer that which is represented by those models, to the universe, requires what is impossible: nobody succeeds. The value of models, even of the best, is very much confined. They show the apparent things better than the real; but even for the former they are not necessary. The teacher may sometimes, by means of a larger and smaller globe, a candle, etc., represent every thing needed. But the perception and representation of what is going on in space, even with shut eyes, is what is indispensable, because it is the principal thing. Whoever does not succeed so far, does not really know or understand.

He who wants to know more, may read my "Astronomical Geography," (*Astronomische Geographie,*) fifth edition, Berlin, 1855, 1½ thaler. (We may add, that this book of Diesterweg's is universally considered as a master-piece of method.—Ed.)

VIII. GEOGRAPHY. BY ABBENRODE.

1. *What are the principles on which the present methods of teaching geography are based?*

They are intimately connected with the general principles of education. Some consider it necessary to proceed from a general view of the globe, in order to gain at first a general outline,—a scaffold, by means of which the building may be gradually constructed in all its details,—and this in such a way that the pupil shall remain always conscious of the relation of the several parts to the whole, and that the latter itself shall gradually be made more and more perspicuous in all respects.

Others think that the beginner should first be led into a sphere commensurate with his faculties, near to him and capable of being surveyed by his bodily eye; and that he ought to be made familiar with it, in order to sharpen his sight and tongue for the later geographical perceptions, and the intellect for the relations more and more complicated. Then, and not before, the boundaries of this field should be gradually extended, to give his growing powers more extended exercise, until, at last, in the highest grade of his studies, the whole earth is considered in all its various relations.*

Others again are of opinion, that the mere observing, hearing and speaking of geographical matter, does not give thorough knowledge; that it is requisite to appeal to the spontaneous activity of the pupils themselves, and to cause them gradually to complete drawn or pictured representations of the localities studied. This method they say is not only in harmony with the juvenile inclination to such work, but gives an indelible knowledge of what is pictured, particularly of its relations of form and surface; which will serve as a solid basis for all further instruction.

On these three foundations rest the ideas of the geographical methods now in use,—the analytical, synthetical and constructive, (drawing,) method, each of which, in practice, admits of various modifications.

2. *What are the peculiar advantages and disadvantages of the analytical method?*

One advantage that should not be undervalued is, that it designedly keeps in view the connection of the several parts of the earth to the whole, so that, from the beginning, all discontinuance of the perceptions is avoided. It most carefully regards especially the topical and physical elements, as well as the necessity of graphic representation. It, however, has this peculiar disadvantage, that it forces upon the pupil the perception of the whole, at a time when he is not yet able to comprehend it fully; and, in particular, not to understand the general relations of climate, soil, produce, etc. It is impossible to carry the beginner along at once in all the collateral studies, *e. g.*, in natural knowledge, so as to thoroughly acquaint him with all these elements. Many things consequently remain an undigested mass, gathered and retained merely in the hope of future understanding.

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* Raumer, in his "*Contributions to Pedagogy,*" has a valuable chapter on teaching geography, which will be found entire in Barhard's "*American Journal of Education,*" Vol. VIII, p. 111—122. He guards teachers against the too frequent or extreme application of Rousseau's suggestions, that the walks of children should supply lessons for map-drawing in the school-room, lest the scholars begin to look on themselves as peripatetic lessons, and get a dislike to geographical reading and study. He advises the use of the map of the city or town in which scholars reside, as an introduction to the understanding of maps and even the globe. He advises that special attention should be paid to oceans, mountains, and rivers, as they help to fix the great facts of history; and of cities, as the most ancient monuments of men. Their sites seldom change; and, with few exceptions, the name of a city once great and flourishing never disappears from the earth or from human history. The poetic side of this study should be cultivated; and the reading of travels, and of the news of the day, and the transactions of commerce, should be associated with it.

3. *By whom has the analytical method been particularly recommended?*

The "philanthropist," Guts-Muths, has, in his "Essay on methodical instruction in geography," (*Versuch einer Methodik des geographisches Unterrichts*, 1845,) exclusively advocated the analytical method, which is also used almost exclusively in scientific works. (See Berghaus, Roon, Kalkstein, Rode, Barth, Viehoff, etc.) Some have attempted to lessen the inconvenience of analysis, by dividing the material into appropriate courses.

4. *In what respect has the synthetical method of teaching geography unquestionable value.*

In that, according to correct principles of pedagogy, a small and easily comprehensible space is treated at the outset; that the most "concrete" things, easily understood by the children, form the ground-work of further instruction: that these small districts or parts are by this method made vividly distinct wholes, the gradual extension of which, and its increasing variety, are well accommodated to the gradual development of the pupil's mind. The subjects and relations thus learned are at the same time the elements of all geographical instruction. Moreover, by this method the pupil gains, within a reasonable time, and in an orderly way, a desirable familiarity with his native place and country; and in case the extent of his studies has to be curtailed, the more remote parts of the globe would be omitted, rather than those with which the scholar and his life are closely connected, and which, therefore, must be most important to him. This method, likewise, admits of laying out definite courses. However, the strict and complete carrying out of it, would lead to an improper extension of the field to be gone through, and might, by tiresome repetition, cause other disadvantages.

5. *Who advocate the synthetical method?*

Charles Ritter, (see Guts-Muths, *Bibliothek*;) Henning, "Guide to methodical instruction in geography;" (*Leitfaden zu einem methodischen unterricht in der geographie*, 1812;) Harnisch, "Geography," (*Weltkunde*;) Diesterweg, "Introduction to methodical instruction in geography," (*Anleitung zu einem methodischen unterricht in der geographie*;) and Ziemann, "Geographical instruction in the burger schools, (*Geographische unterricht in Bürgerschulen*, 1833.)

6. *What is to be thought of a combination of these two methods?*

Strict consistency in either of them leads inevitably to many inconveniences. Therefore, we must either follow one in the main and make all kinds of exceptional uses of the other, or contrive to combine them judiciously. It is a great concession made to the synthetical method by the analytical, that the latter should permit, as introductory to the proper geographical course, a preliminary one, to include observation of the neighborhood and its objects; drawing easy sketches of the school-room, house, garden, etc.; instruction in measures of length and breadth, (if possible in the open air;) experiments in sketching the neighborhood from an elevated point, with estimates of area by eye, on a small scale, (for children of 7–8 years;) and geographical instruction on the native country, (province or state,) with an occasional exposition of the elementary geographical conceptions. Bormann, who tries to combine the best parts of the two methods, makes the first described preliminary course, (somewhat modified, and with the addition of observations of the most simple phenomena of the sky,) his *first* course; giving in the *second* a view of the globe, with instruction upon its principal imaginary lines, and the drawing of them, with a general view of Europe, and a particular one of Germany; advancing in the *third* course, to a more accurate description of Germany, followed by a view of the other European and extra-European countries. Such a combination may be considered as appropriate and practical; still it is not the only one possible.

7. *What are the advantages of the constructive, (drawing,) method?*

The drawing method proposes, by construction of maps, instruction in the elements of such construction, before all regular teaching, to furnish the basis and means of all geographical knowledge. It places especial value on the creative activity of the pupils; and upon such an impression of the pictures drawn, that this may be indelible and vivid in the pupil's mind, and form the foundation on which future geographical teaching shall rest. The accuracy and strictness which this method gives in fixing and enlarging the forms is unquestionably very valuable, for very much depends on a thorough acquaintance with these forms. A designedly and gradual advance from the most general ground-forms to the more correct contours, and filling them out afterward with details of surface, is quite correspondent with pedagogical principles. This method, however, requires far too much in the way of accurate memory of numerous localities laid down. Geography contains still many other things of essential value, for which there would scarcely remain sufficient time and interest.

8. *How is this constructive method usually carried out in detail?*

Agren, general text-book, Part 1, Physical Geography, (*Allgemeines Lehrbuch: physische Erdbeschreibung.*) Berlin, 1832, would first have the maps of the two hemispheres drawn, on a planispherical projection. Some characteristic points, (capes, mouths of rivers, etc.,) are then to be fixed and joined by straight lines, to gain a sort of ground-plan of the area. The formation of the coast comes next, and afterward the parts of the surface are put in,—all by fixed and defined rules. This method, therefore, distinguishes between description of the coast and of the surface.

Kapp, "Course of Geographical Drawing," (*Lehrgang der Zeichnenden Erdkunde,*) Minden, 1837, takes the square form as a basis, and likewise assumes some characteristic points in the same, which he joins at first by straight lines, until successive corrections give the right representation.

Klöden rejects the gradual elaboration of the right map. According to him it must be drawn accurately from the very beginning by aid of some determining lines.

Canstein takes neither the whole geographical net of lines nor the form of a square; but any convenient geometrical figures, as triangles, rectangles, circles, etc., and uses but few meridians and parallel circles. He admits no copying, nor does he aim at strict accuracy in all determinations of boundaries and directions.

Lohse keeps to the normal directions of the rivers; has copies made from a given model-drawing, and requires a memory of what has been drawn.

Oppermann, "Guide to Geographical Instruction," (*Leitfaden zum geographischen unterricht*,) gives the pupils the right maps, ready made, in accurate contours, has these contours painted over in the succession in which the countries occur in the lessons, and then the details of the surface put in.

Klöden's method, (see above,) seems to be the best. On the plan of Bormann and Vogel, the pupils have skeleton maps, with the chief positions already marked, (see the maps of Vogel, Freihold, Holle, etc.,) and gradually draw the correct maps.

9. *To what limitations is the constructive method subject in the common schools?*

The drawing of maps, (by which must not be understood mechanical copying,) can not of course begin until the scholars have skill in drawing generally sufficient to construct a relatively correct map with some success. But geographical instruction itself can not be put off until that time; therefore, drawing maps can not be placed at the beginning, but must take its place in a higher grade. Again, unless geography is to occupy all the study and leisure time of the pupils with making neat maps, not entire atlases, but only a few maps, can be drawn, (that of the native province and country, of one or another country of Europe, of Palestine, etc.; but scarcely, with advantage, the two planispheres.) At school, there is not time to draw every thing, and if there were, it would be better used in other things, since map-drawing, an excellent aid to geographical instruction, is not that instruction itself.

10. *What is the proper introduction to teaching geography?*

It must be preceded by an acquaintance with the relations of space in the immediate neighborhood, and with the geographical objects there, as well as by an elementary knowledge of maps, and thus of elementary conceptions, for the sake of conversing on the same; else the pupil can not understand clearly nor advance successfully.

11. *What is the value of a preliminary course,* (*Vorcursus*,) *intended exclusively for explaining the fundamental conceptions?*

Those conceptions are indispensable; but to bring them all together in an especial course and to premise them to further instruction, is a pedagogical mistake, more inexcusable, in proportion as the course is more extended and abstract. In the same measure as instruction proceeds, the detail and quantity of accurate geographical notions may increase. But the beginning is sufficiently taken up by the first and most general of them, which are to be immediately applied. Excessive and premature expansion is injurious instead of useful. Much more is to be gained by actual observation of the elements of the neighboring landscape, with a view of frequent application afterward.

12. *What are the practical details requisite in geography?*

There is much to be observed, compared, understood, deduced, combined, impressed, represented. These, therefore, must be cared for, in teaching. The means of observation ought to be used in manifold ways, in order to gain the most correct image of the nature and life of the countries, and to illustrate and fix the same by all sorts of proper comparisons of the portions treated.

The teacher's statements should be clear, careful, stimulating, graphic, and definite; ought to leave the map only exceptionally; and should be adapted to fix the image in the pupil's mind. He must show how to draw conclusions from given natural conditions, to infer elements from given relations, to transfer the relations of the neighborhood to distant countries, and to combine partial notions into a whole. So far, the teacher's work is substantially that of communication. Mere reading, or uninterrupted talking, does not in the least accomplish the right work of geographical instruction.

The next important object is drilling, by a repeated review in the same order, or by an appropriate course over similar fields, by exhibiting sufficient representations of objects which can be impressed only mechanically, by imaginary travels with or without the map, by drawing maps from memory, by written answers to principal questions, etc. Hence, it follows that teaching geography requires manifold efforts, and that the teacher must be a good geographer and an able teacher, to be very successful.

13. *What position in geographical instruction is due to reading from the map?*

At present it is no longer sufficient, with text-book in hand, to merely point on the map, what is spoken of in the book,—situation and boundaries of countries, beds of rivers, chains of mountains, places of cities, etc. The teacher must know how to read maps, and to teach them; *i. e.*, not only to describe what figures and in what order and connection they stand on the map, but to translate the map, line by line, into the real world, in order that this be faithfully impressed in the mind, to be at any time reconstructed from it. He must understand the contents and meaning of the hieroglyphics of the map, and know how to exhibit them in an orderly and appropriate way, as we read a book. In reading a book, it does not suffice to find out the letters, to comprehend the single words and their conceptions, but the whole idea must be clearly understood and reproduced. The study of the map ought to render a great deal of the usual contents of the geographical text-books quite superfluous, that the pupil may not cling slavishly to the dead letters of the text-book, but may depend on the lively picture of a good map. (See Bormann and Sydow on reading maps.)

14. *What is the value of the "comparative method" of teaching geography?*

If the material were such that all parts of it should be learnt quite separately from each other, it would not be worth while to use this method; for the gain in mental cultivation would be small. But since numerous conditions are the same or similar in many countries, it is natural, even for externally facilitating the understanding, to try, by comparing them with those of other countries, to know the nature of both countries and the effect of those conditions on nature Situation, boundary, size, elevation, watering, climate, produce, population, means of commerce and travel, etc., and many other subjects, are suitable for comparisons. The comparison itself is an excellent introduction to the object, induces more acute observations, memory, reflection, a sagacious detection of differences, and becomes thus an efficient means of cultivating the mind. It is this which makes geography a refreshing as well as scientific exercise of the mind; since the mastering of a more or less extended scientific apparatus is both a means and an end. However, even in a small sphere and at the first beginning, these comparisons may be used, and then, as the student's horizon gradually expands, they will become more various, attractive and instructive, and will preserve the mind from that fragmentary and mechanical learning, by which the end can not be attained.

15. *What success may be expected from geographical pictures?*

Maps are but symbols of real nature: they represent by a hieroglyphic type a number of natural elements for large territories, without being able to represent correctly the real objects of small areas. But, a well-designed and sufficiently copious collection of vivid and correct pictures, on an appropriate scale, well colored, containing mountains, valleys, plains, rivers, woods, prairies, fields, houses, bridges, ships, men, animals, etc.; or a choice collection representing the coöperating elements of nature in the most various places, in all zones, would be in a high degree instructive for the more advanced scholars. Then the eye might survey the whole landscape of natural and human life in its mutuality and connection, and would bring near the characteristics of the most distant countries; nearer than is possible by the most vivid description in words with the map only. For beginners, such pictures would be distracting; but, at an advanced period of instruction, nothing could be more useful. They would enliven the oral descriptions, and their impression would endure for life. With this conviction, some editors of maps, (see Vogel's Atlas,) have renewed the illustrations of maps, common in the middle of the past century, by no means merely for mere ornament, and have added marginal designs from the natural history of the world. Even in mathematico and physico-geographical maps, (see Berghaus' Physical Atlas,) this idea is made use of.

16. *What is the value of the so-called characteristic pictures,* (CHARACTERBILDER?)

It may be said, briefly, that the geographical *Characterbilder*, i. e., characteristic representations or descriptions of certain districts, afford a sensible view of the real life of nature, by developing, as upon a single characteristic locality of the globe, by the use of elements found elsewhere, with some modifications, the totality of this life in its various respects and relations. By a well-selected succession of such representations, the sections, as it were, of a picture of the whole earth, are given, and may afterward be joined into a whole. If they are written ably and sensibly, they have, besides their geographical importance, a great influence on æsthetic and linguistic education. It might be questioned whether near or distant countries are to be chosen, since the latter contain the greater number of unknown things; but practical teachers will prefer to begin with what lies nearest, and must, therefore, be most important for every one; as moreover this material contains enough to be learned by a beginner. (See Vogel's and Grube's "*Characterbilder*.")

17. *What position should be allowed to the geography of civilization, (culturgeographie?)*

It is not the earth, with its life, but man upon it, with his life, which is most interesting to man. The former interests us only on account of its intimate connection with the latter. To explain this connection is the difficult problem of "culture-geography;" which, for working out all the most different influences of life and nature into a transparent and ingenious whole, requires the highest degree of mental power, and has its place, if anywhere, only at the end of geographical instruction. Several movements of the human race must be discussed previously, and a satisfactory understanding of them is probably in all cases very doubtful with scholars who are not sufficiently prepared for it.

1. Guts-Muths, (*Versuch, &c.*) Weimar, 1845. See above, No. 3, analytical method.

18. *What works on methodic instruction in geography are particularly worth considering?*

2. Lüdde, "Methods in Geography," (*Die methodik der Erdkunde,*) Magdeburg, 1842. This is not confined to the wants of common schools, but gives academic instruction.

3 Zeune, "The three steps in Geography," (*Die drei stufen der erdkunde,*

Berlin, 1844, aims at laying the foundation of a strictly scientific instruction on the basis of a natural view of the earth, (in opposition to the historical;) which character also predominates in Zeune's *Gœa.*

4. Henning, "Guide to methodical instruction in geography," (*Leitfaden beim methodischen unterricht in der geographie,*) Iferten, 1812. See Pioneers of the synthetical method, No. 5.

5. Ziemann. See above, No. 5.

6. Görbrich, "Introduction to geographical instruction in common schools," (*Anleitung zum erdkundlichen Unterricht in der Volksschule,*) Wien, (Vienna,) 1853. A synthetical method; plain and clear.

7. Otto, "Universal method of geographical instruction," (*Allgemeine methodik des geographischen Unterrichts,*) Erfurt, 1839. Adheres to Guts-Muths, but uses the advantages of the synthetical method.

8. Agren. See above, No. 8; constructive method.

9. Kapp. See No. 8.

10. Canstein, "Attempt at a free delineation of the physical surface of the earth, by a simple method of construction," (*Anleitung, die physischen Erdräume mittelst einfacher Construction aus freier Hand zu entwerfen,*) Berlin, 1835. See No. 8.

See also, the introductions to Harnisch's "*Weltkunde,*" and Diesterweg's "*Rheinprovinzen;*" the essays in Mager's pedagogical "*Revue,*" 1840 and 1841; in the "*Schulblatt der provinz Brandenburg,*" 1847 and 1850; in Löw's pedagogical "*Monatschrift,*" 1847; in the programme of Bender's Institute, in Weinheim, 1850; in the General School Gazette of Darmstadt, 1845; (see *Finger,* "Instruction in the knowledge of the native country," (*Unterricht in der Heimathkunde,*) Leipzig, 1844;) in the pedagogical "*Jahresbericht,*" of Nacke I., III., V., VIII., 1846–53. A historical exposition of geographical methodology is found in Zeune's "Views of the Earth," (*Erdansichten,*) and a compilation of the "Latest views upon geography and their application to school instruction," (*Neuesten Ansichten von der Erdkunde und ihrer Anwendung auf den Schulunterricht,*) in Lichtenstern's book with that title.

19. *What books on mathematical geography are the best?*

1. Diesterweg, "Astronomical geography and popular knowledge of the Heavens," (*Astronomische geographie und populäre Himmelskunde,*) Berlin, 1855. 5 editions. The best of all.

2. Wiegand, "Principles of mathematical geography," (*Grundriss der mathematischen geographie,*) Halle, 1853. Practical and good.

3. Brettner, "Mathematical Geography," (*Mathematische geographie,*) Breslau, 1850. Quite practical and popular.

The chapters concerning mathematical geography are excellent in Raumer's "Manual of Universal Geography," (*Lehrbuch der allgemeinen geographie,*) Leipzig, 1848; in Roon's greater geographical work, "The earth, its races and states," (*Erd, Völker, und Staaten-kunde;*) and in Berghaus' "Rudiments of Geography, in five books," (*Grundriss der geographie in fünf Büchern,*) Breslau, 1840.

Of books on popular astronomy, very good ones are Kaiser's "Starry Heavens," (*Sternenhimmel,*) very clear; Littrow's "Wonders of the Heavens," (*Wunder des Himmels;*) Stern's "Knowledge of the Heavens," (*Himmelskunde;*) Schulze's Astronomy; Mädler's Popular Astronomy; Hartmann's Urania; and Airy's and Brande's Lectures on Astronomy.

20. *What books on physical geography may be recommended?*

Berghaus, Roon, Raumer, Rougemont, Kalkstein, Guyot, Guts-Muths, Ewald, Somerville, Reuschle, K. V. Hoffmann, W. Hoffmann, Schouw; besides, the "*Characterbilder*" of Grube and Vogel, and shorter works by Viehoff, Cörnelius, Ball, Buff, Atzerodt, Gambihler, Gude, etc.

21 *What text-books on political geography are the most popular?*

The number of politico-statistical geographies is enormous. As most prominent, we may name those of Völter, Roon, Schacht; as very common, those of Bormann, Daniel, Selten, Voigt, Volger, Seydlitz, K. A. Hoffmann, Zachariæ, Stein-Hörschelmann; as shorter ones, those of Lüben, Stahlberg, Möbus, Ohlert, Petersen; as very good, those of Rhode and Barth; as larger ones, those of Ungewitter, Blanc, Wappaens, W. Hoffmann, etc.

The new discoveries are found in Froriep's "Almanac," (*Jahrbuch*;) in Berghaus' *Jahrbuch*; in *Lüdde's* "Gazette of Geography," (*Zeitschrift für Erdkunde*;) in Gumprecht's *Zeitschrift*; in Petermann's "Contributions," "Mittheilungen."

22. *What works are there upon Geography of the native country?*

Not so many as might be expected. For the geography of Prussia, Schneider, Schmidt, Uvermann, Vossnack, Natzmer; for that of Germany, Guts-Muths, Hoffmann, Winderlich, Billig, Curtmann, Vogel, Duller, etc.

23. *Which maps are the best?*

The wall-maps, (*wandkarten*,) of Sydow, Roost, K. V. Hoffmann, Stülpnagel, Grimm, Holle, Winkelmann, etc.; the hand and school-maps of Sydow, Berghaus, R. and Th. Lichtenstern, Völter, Stieler, Bauerkeller, Grimm, Kiepert, Kutscheit, Winkelmann, Roost, Glaser, Wagner, Platt, Holle, Voigt, Gross, Vogel, Schuberth. For physical geography, Berghaus' *Physical Hand Atlas*, and his *Schulatlas*, are classical; and Bromme's Atlas, to Humboldt's Kosmos, very good.*

IX. HISTORY. BY ABBENRODE.

1. *What are the material conditions requisite to make history an important means of mental cultivation?*

The material ought to be selected with reference to the intellectual standing and wants of the pupil, to be formed into a well-systematized whole, and to be so used in teaching that, by its vividness and truth, as well as by its attractiveness for the juvenile mind, it may arouse and strengthen, improve morally, prepare the pupil worthily for practical life, and nourish in him a Christian spirit Of course, the character of the nation to which the pupil belongs, is prominently to be considered.

2. *What personal conditions influence the cultivating power of the study of history?*

As the totality of the pupil's individuality requires, in historical construction, great regard, and as very much depends on the tact with which his mental powers are nourished, so the effect of history on his mind depends even more on the ability and character of the teacher. Unless he possesses, together with the requisite external skill, a sufficient knowledge of history, true piety, and a

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NOTE. Especial reviews of a long number of books and maps are in Nacke's "Educational Annual," (*Pedagog. Jahresbericht.*) I., III., V., VII., and in Klöden's review of modern maps in the 'School Gazette of Brandenburg," (*Schulblatt des provinz Brandenburg*,) 1845 and 1846.

noble heart; and unless, besides being a man of veracity, he has acquired conscientious impartiality and the circumspect calmness of a clear judgment, he can not hope that his pupils will experience the cultivating power of history.

3. *What are the leading characteristics of the proper material?*

The most essential of these materials are, a, the political, under certain modifications, particularly that of the native country; b, history of civilization, under some limitations; particularly, that of the Christian church. Though the material chosen under either of these heads may be throughout kept asunder, and, in fact, has been so very often in historical works, yet an appropriate combination of the two for construction must be recommended, since they supplement one another usefully, and, in practice, admit quite well of this mutual compensation. Our German youth need, above all, the history of Germany, and where there is occasion, the attention should be fixed on the ecclesiastical, scientific, and artistical development, as well as on the formation of the character and manners of the nations. Which of the two sides, and in what proportion, is to predominate, depends on the particular wants of the pupils: still the history of the church is of especial value.

4. *What are the principles of teaching history in school?*

Historical instruction requires in all cases a narrative form. In proportion to age and ability, the narrative will have the character either of biography and monography, or will represent, in chronological order, definite groups of historical facts in their interior connection; without any exaltation of the authors of the events very high above the common level of life. In either case the teacher may choose an ethnographical, or a synchronistical order. The pragmatical method, right and important in itself, has in most cases at school, an unsatisfactory result, even in higher schools; since even the well-prepared students of the gymnasia, (colleges,) want the maturity of life which must aid the pragmatical understanding. Finally, the method of universal history is quite unsuitable to schools.

5. *How have those principles been practically used and expressed hitherto?*

History has been, from the most ancient times, written and taught in all forms. It has been a monumental narrative of the exploits of whole nations and privileged individuals. Each ancient people has, out of a certain necessity, written and taught its own history,—some classically,—for all time. Besides, modern nations have taken hold of the history of other countries, particularly of old Greece and Rome, and reflected them in the mirror of their own perception; they have created the representation of a history of the world,—general history. This has led to teaching general history, either connected with that of the church or separate from it. The almost exclusively "scientific" method of treating the same in writing and teaching made it suitable only for such as wanted a "scientific," (collegiate, etc.,) education. Others neither could nor should learn it. But, since a common inclination to acquire historical knowledge has sprung up, in consequence of a more general education in better schools, it suffices no longer to confine this instruction to the disciples of science, nor to satisfy with general notices from history. The people, even in the lowest classes, will—and should—partake of it. This has led to manifold and successful attempts to find a suitable way of treating history, and to give the common school a share in its profits.

Several popular and practical methods of teaching history have arisen, which, though differing in many respects, agree very much in their fundamental ideas.

These methods may be distinguished first, as being chiefly restricted, the one to *biographical* and monographical narrations, the other to the *natural* and *temporal connection* of historical events. In the former case the chief persons and events to be spoken of are at first arranged by beginning from modern times and proceeding in a *retrograde order* to certain primary epochs, in order to review the whole afterward, from these points, more thoroughly, by descending in the natural order of time. Or, the most important phases of the development of national and political life are made the centres of an arrangement, by groups, which treats the facts and persons that are the types of that development, through all time, in definite periods, and only occasional side-looks are cast on cotemporaneous events.

In the other case, either the historical material is arranged in chronological order, and divided, according to its nature in the different ages, amongst single nations, (ethnographically,) from their rise till their fall; or, all nations are treated side by side at the same time, in periods, (synchronistically,) in order, on arriving at each new epoch, to gain a general view of the development of the whole human race.

In both cases it is either the history of the native country or the general history of civilization, or that of the Christian church, by which the point of view is regulated, and on which the chief stress is laid.

6. *What are the advantages of the biographical method?*

As long as it is of consequence to arouse the historical sense of beginners, and while these are not so far advanced as to understand the general state of a nation, since their interest for individuals preponderates, so long it is quite natural and profitable to join all history substantially with the biography of the representative chief men, at the same time with which the outlines of the chief events may be surveyed. Even at a later stage, the biographical element has a high value, since it may give, along with narratives of individual experience, especial relations of the general development of events, such as facilitate their understanding and enlarge knowledge at the same time. Even the hidden motives of facts are not laid open to the historian, until he has looked sharply into the particular life of the leading and coöperating individuals, who either receive or help to give the character of their time. We may add the general human interest excited by personal experiences of life, and the moral influence exerted on susceptible minds. Dry generalities and outlines can of course never excite such a lively interest as good biographical narrations.

7. *What are the objections to the exclusive use of the biographical method?*

A mere succession of separate biographies will never show the real course of the general development of history; they are, even the best, mere fragments and portions, but not history itself in its inner moral connection. Moreover, the description of the outward life of historical persons, as sufficient for beginners, is indeed generally not difficult; yet it is so, in a high degree, to enter into their inner life and character, whence all their actions originate. It presupposes so much knowledge of the human mind, so much self-denial and impartiality, requires such an expanded and detailed knowledge of the material for understanding motives, that it is as rare to find good biographies, as it is rare to find those conditions combined in one man. The usual biographies swarm with generalities and partial judgments.

8. *What is the value of the regressive method?*

Strictly speaking, the regressive method is the preferable one for historical research. Facing the events, it inquires into their immediate causes, and goes back to the remoter ones, in order to reconstruct philosophically the history which has been developed according to a higher and divine plan. So far as the method of research is to be represented by the method of teaching,—as it sometimes has been required,—the regressive proceeding is correct; besides, it is formally practicable without difficulty. But it is contrary to the process of historical narration, and begins almost necessarily from characters and epochs of modern times, by far too complicated for beginners, and such as to prevent usually the combination of truth with popularity. Besides, this method could be applied only at the beginning, and would soon necessarily pass over into the chronological one.

9. *How far is the chronological method valuable?*

The historical events develop themselves in time; the natural course of the latter is, therefore, both back-ground and frame of the former, since it constitutes the thread of the narration. Time facilitates comprehension, remembrance, and comparison of historical movements; it marks best the sections and epochs of development, favors thus the rudiments of historical instruction, and, in general, is indispensable. History may be treated in the one or the other way, with beginners, or with advanced scholars; but the succession of time must be necessarily cared for.

10 *Under what circumstances is the ethnographical method suitable?*

After the primary course, which lays the foundation, (biographical and monographical,) has been finished, and a second one has led nearer the more general connection of the chief movements in history, then it may be useful to pursue the history of the prominent modern nations, ethnographically, from their first rise until their present state. In ancient history it is a matter of course to proceed chiefly in the ethnographical way, because those nations have led for a long time a separate life, and after a victorious conflict with neighboring nations have merged them in their own life.

11. *What are the difficulties of the grouping method?*

The idea of pursuing material similar, by interior connection, through all centuries, and of joining it into a whole, is in itself well enough. But, on the part of the teacher it requires an unusual knowledge of particulars in the development of nations; and, on the other hand, the problem is too hard for the juvenile mind. It may be, that many things can be omitted, or at least treated separately as a matter of secondary interest; but, it is questionable whether they would be advantageous with reference to the whole. Besides, the hard problem must be solved of connecting finally the single parts of development into a totality.

This method, even for the especial history of a nation, the German for instance, is attended with great difficulties, but these would increase, if it should be applied to all other civilized nations. For, by its nature, it lays the chief stress on the development of civilization, and displays but on such points the characteristic picture more fully, when it is desirable, from a national and patriotic point of view. The entire plan, so far as I know, has not yet been practically carried through.

12. *When has the synchronistical method its right place?*

Synchronism is not suitable for beginners. It requires an advanced standing, to view the contents of entire periods of the development of nations, and understandingly to pursue the gradual progress in it. To whoever is not able to survey that progress in its degrees, and, when arrived at a remarkably high point, to bring afterward the different conditions of other nations to view, interweaving them with the former picture, and thus to compose a totality of those intermixed developments, to him a synchronistical treatment of history remains sterile. Therefore, scarcely even the pupils of the first class, in our higher seminaries of learning, can be considered as sufficiently prepared for it.

13. *Who has recommended the biographical method?*

It may be said the entire modern school has unanimously recognized it as the best and most suitable for beginners. For this grade, nearly all modern methodic histories contain only such material as is fit for biographical instruction. In higher schools, a biographical course has been arranged in the lowest classes, and approved everywhere by the authorities.

14. *Who has recommended the regressive method?*

Dr. Kapp, in his general work, "Scientific school instruction as a whole," (*der wissenschaftliche Schulunterricht als ein Ganzes,*) Hamm, 1834, is one of the first. Dr. Jacobi has recommended it, especially for the history of the native country, "Outlines of a new method, &c.," (*Grundzüge einer neuen methode, etc.,*) Nürnberg, 1839.

15. *What is the origin of the chronological method?*

From time immemorial scarcely any other method has been used in Germany than this; now joining synchronism, now following the ethnographical principle. Until this hour it prevails in the majority of schools, of classical histories, and of text-books on history. It has been modified by many competent historians and teachers, for the various purposes of elementary, burgher, and real schools, and gymnasia. Some introduce it by mythology, others by a biographical course. Some give the first place to ancient history, others to national history; others, again, attempt to suit the various wants, by a particular partition of the material, by all sorts of principles of treatment, by accommodation to the different stages of life, or by raising certain historical pictures, (*characterbilder,*) above the general course of history.

16. *Who has tried to introduce the grouping method?*

Stiehl, (now privy-counselor,) has proposed, in a little book, "Instruction in the history of our country in the elementary schools," (*Der vaterländische Geschichtsunterricht in unsern Elementarschulen,*) Coblenz, 1842, to promote instruction in the history of the fatherland by a vivid transfer into the midst of national life, by historical facts grouped around a national calendar, with the exclusion of systematic chronology, and by presenting the coherent material well-wrought together in one mould; besides, making the whole more fruitful by commmunicating important patriotic documents and like best patriotic songs.

In a different way, Dr. Haupt, in the preface to his "History of the World, on Pestalozzi's principles," (*Weltgeschichte nach Pestalozzi's grundsätzen, etc.,*) Hildburghausen, 1841, recommends a grouping of the entire history after certain categories of the material, (home, society, state, nation, religion, science, and art,) in each of which the suitable material of all time is comparatively placed beside each other.

17. *What are the most recent tendencies concerning historical instruction?*

On the one hand, it is recommended to interweave classical sentences and good historical poems, in order to vivify historical instruction by dramatizing it, and so impress better the chief epochs, especially of natural history, by story and song. On the other hand, for the sake of concentration, various combinations with geography, natural knowledge and religion, and even with the hymn book, are recommended. An endeavor has also been made, to simplify the material for common wants, by cutting off the less fertile portions, particularly of national history, and to compensate for this by entering deeper into some chief characters and events. This has fixed attention more and more on historical *characterbilder*, which are now in various works, at the teacher's command, to be used chiefly for a good Christian and national education. Particularly, it is endeavored to view more closely the civilization of nations, especially of one's own; to give more Christian and dogmatic matter; to introduce the youth rather more into the historical development of the social orders and classes than into the history of the world; and to find one's own account in the execution. For each of these tendencies, respectable voices have been heard.

18. *What is to be thought of these tendencies?*

It is a pedagogical mistake to do too many things at once. The teacher of history must abstain from teaching at the same time catechism and natural sciences; they do not belong to history. Further, the hymn book can not be considered as a suitable guide for instruction in national history, to say nothing of the obscure origin of many songs in it. To interweave many sayings of a celebrated man, even to make it sometimes the centre of the narration, may be quite suitable. It may be very effective to celebrate a great hero or event of history, besides elevating and improving description by a good song also. But, more important is it to simplify, and to enter deeply into the chief points, and therewith to nourish earnestly a patriotic and religious sense,—which may, no doubt, be much aided by good national "*characterbilder*." A prominent regard for the orders of society is not only difficult but even not without danger. To save better care than hitherto of the progress of civilization, and to avoid subjective tendencies, particularly in modern history, will be approved by all sensible persons.

19. *How far is geography to be cared for in teaching history?*

Up to the present time, all attempts to combine, after a definite plan, all historical with all geographical instruction, have nearly failed. The common way in which it is done now, is either to premise to the history of the various nations and states the related geographical matter, or occasionally to insert it in fragments. In this way, of course, geography has not its degree; because for many geographical objects there are no points of reference and connection. Further, it would be necessary to explain at every time only the corresponding geography of that period, so that a comparison with the geography of the present time would be needed,—a necessity that has always great difficulties for young people. The plan by which certain geographical sections alternate with historical ones, (the former analytically, the latter chronologically,) no one would consider as a praiseworthy combination. In whatever way it is done, it is indispensable to make the geographical field of history as clear as possible. Instruction in history can neither be tied to a specific plan of teaching geography, nor can it aim at an appropriate and complete finishing of the latter. The same is true vice versa.

20. *What is the value of historical poetry in teaching history?*

So far as historical poetry keeps within the sanctuary of truth, its artistical glorification of characters and deeds is unquestionably of high value, and the appropriate use of it can not be too much recommended. But, as soon as it leaves truth, and idealizes, poetically, the historical persons and their exploits, it is no longer of importance for instruction, even if the poems be of great poetical value.

21. *Why are the historical dates so valuable?*

It may be asserted, without hesitation, that, without fixing the dates, instruction and a ready knowledge of history is impossible. As long as the pupil is not yet conscious of the distinction of time in its practical worth, the general outlines of the historical event may be sufficient; but, as soon as that consciousness is awake, the event and person must be connected with the date, in order that the former may be better remembered, better understood in its position of time, and better distinguished from related phenomena. The dates are the most simple monitors of memory, and can never be entirely omitted, though they ought to be limited for children, and sometimes to be made round numbers, for the sake of memory. They help to regulate the material in the easiest way, and join the natural development of events; nay, a sensible arrangement of them often aids the understanding of related events better than long expositions could do.

22. *What is the didactic value of good historical pictures, maps and tables?*

In teaching, very much depends on making history intuitive and lively. It is, therefore, desirable to aid the oral address by appropriate means. Such are historical pictures and tableaux, since they represent often the historical action more clearly in one moment than the most copious description by words. Of course, they must be true and of artistical worth. Historical maps aid best the perception of the geographical extent of a historical transaction, and often afford the most natural representation of its results upon the position of nations and states to one another on the globe. Tables facilitate both a short review of the chief events in chronological and synchronistical order, and a firmer impression on the memory, by bringing to view the rise, fusion, separation, and falling of nations, etc. Also they can best represent, in side columns, the different movements of development at the same time in state, church, science, and art.

23. *In what respects does private reading further historical knowledge?*

Since it is impossible to treat in school every thing desirable for youth, it is very important that appropriate reading in private should assist to complete the historical knowledge. It is indispensable for a more detailed familiarity with the chief characters and events of the world or the country. Fortunately, the desire to read history is as natural as it is common among youth; and, even to a more advanced age, there is no better occupation, in leisure time, than historical reading.

24. *What books treat upon the methods of teaching history?*

a. Peter, "Historical Instruction in the Gymnasia," (*Der Geschichtsunterricht auf Gymnasien,*) Halle, 1849.

b. Loebell, "Outlines of a method for teaching History in the Gymnasia," (*Grundzüge einer Methodik des Geschichtsunterrichts auf den Gymnasien,*) Leipzig, 1847. This work suggests a careful partition of the material.

c. Miguel, "Contributions to the study of Biography in the Gymnasia," (*Beiträge zur Lehre vom Biographische unterricht auf Gymnasien,*) Aurich, 1847.

d. C. A. Müller, "Historical Instruction in the Schools," (*Über den Geschichtsunterricht auf Schulen,*) Dresden, 1835. A very thorough treatise, recommending, among other things, the biographical method.

e. Arnold, "On the Idea, Actuality, &c., of History," (*Über die Idee, das Wesen, etc., der Geschichte,*) Koenigsberg, i. n., 1847. (See the history of the world.)

f. Assmann, "The Study of History," (*Das Studium der Geschichte,*) Brunswick, 1849, recommends beginning with myths and chronological reviews.

g. G. Weber, "Historical Instruction in the Schools," (*Der Geschichtsunterricht auf Schulen,*) Heidelberg, 1850, contains very good hints for gymnasia, real and common schools, etc., etc. Besides the prefaces to many text-books, etc., we may mention Diesterweg's "Rhine Gazette," (*Rheinische Blätter,*) of 1835, 1840, 1842; General School Gazette of Darmstadt, of 1834, 1841, 1843, 1848; Mager's Pedagogical Review, of 1841, 1845, 1851, 1853, and 1854; the *Schulblatt des provinz Brandenburg*, 1851, 1852; Löw's Pedagogical Monthly Review, 1848, 1853, etc. Also, Diesterweg's, "Directory," (*Wegweiser,*) II.; and Nacke, *Pedagogisches Jahresbericht*, I., III., V., VII., etc.

25—40. Books and Maps. (On methods, see No. 24.) Text-book on Prussian History, Löschke, (the best.)

For private reading: Zimmermann, "History of Hohenzollern," (*Geschichte der Hohenzollern;*) Reiche, "The former times of Prussia," (*Preussen's Vorzeit;*) Kloss, etc.

Collection of patriotic poems: Müller & Kletke, Berg, etc.

Short text-books on German History: Asmus, Kohlrausch, Eder, Böttiger, Grobe, and Dittmar. (The last is the best.)

Larger Histories of Germany: Pfister, K. A. Menzel, W. Menzel, Luden, Ranke, Raumer, Bülau, Lochner, Wietersheim, etc., etc.

For private reading on German History: Ramshorn, Niemeyer, (Deutscher Plutarch,) Henning, Wolff, (Germania,) Vogel, (Germania,) etc.

Collection of historical poems on German History: Wagner, A. Müller, H. Kletke, A. W. Grube, Zimmermann, A. Böttger, etc.

Text-books on General History: a. short, Dittmar, (the best;) b. larger, Leo, Wachler, Arndt, Ellendt, Dittmar, Wachsmuth, Schlosser, Dietsch, etc. (All of them used only in gymnasia and real schools.

Popular histories, with much material for biographical instruction: Böttger, Schwartz, A. W. Grube, (*Characterbilder,*) Vogel, (*Geschichtsbilder,*) Becker, etc.

Classical Histories, partly on single periods: Schlosser, (the 18th century,) Raumer, (Hohenstaufen,) Eichhorn, Luden, Heeren & Ukert, Leo, Rehm, Wilken, (Crusades,) Bredow, Niebuhr, (Rome,) Ranke, (Popes and Reformation,) Dunker, Peter, O. Müller, (Greece,) Poelitz, W. Menzel, Arndt, Dahlmann, Wachsmuth, etc.

For private reading on General History: Schwab, "Ancient History," (*Sagen des Alterthums;*) Lange, "Histories from Herodotus," (*Geschichten aus Herodot;*) Niebuhr, "Heroic History of Greece," (*Griechische Heroengeschichte;*) Homberg, "Biographies of celebrated Greeks," (*Biographien berhümter Griechen,*) etc.

For well educated readers: Kletke, "Antiquity in its chief movements," (*Das Alterthum in seinen Hauptmomenten.*) (Excellent.)

Historical Tables, very simple: Wander, Bredow, Schäfer, Dielitz, Püty, K. Th. Wagner, Peter; larger, Kohlrausch, Pischon, Lochner.

Historical Maps: a. small, Schaarschmidt, Muhlert, Rodowicz, König, etc. b. Larger, Wedell, Spuner; (Best and classical.) c. For the wall, (*Wandkarten,*) Vogel, (Europe;) Bretschneider, (Europe;) Hoffmann, (ancient world;) Holle, Kiepert, (ancient times.)

Historical Pictures: Dethier, *Historisch-chronologische Gallerie;* a collection of 1500 medallions. Gross, "History of the World in Pictures," (*Weltgeschichte in bildern.*) The very best on German history is K. H. Hermann's *Geschichte des Deutschen Volks*, (History of the German Nation,) in 15 pictures.

RELIGIOUS INSTRUCTION

IN

PUBLIC SCHOOLS.

BY RT. REV. GEORGE BURGESS, D. D.

[Reprinted from Barnard's American Journal of Education.]

THOUGHTS ON RELIGION AND PUBLIC SCHOOLS.

BY RT. REV. GEORGE BURGESS, D. D.

If the Christian religion be from God, it ought to influence every thought and act of man, and to control every department of human life. If education be the school of character, it is least of all to be excepted from the sovereignty of that religion.

That Christian men, therefore, should view with indifference any attempt to establish an absolute separation between education and religion, is not to be expected from them till they renounce their faith. They can have no more idea that a child can be rightly educated without instruction in the laws of God and in the Gospel, than that a man can live without the same knowledge, and yet duly serve his Maker, and be prepared for the life to come.

Education, therefore, must be religious, and must include instruction in all necessary knowledge of the truths of divine revelation. In proportion as the dignity, the importance, and the efficacy of education are magnified, this necessity becomes but the more impressive and undeniable. If the educator could be content with defining his task as that of teaching to read and to write, or even to measure the earth and to number the stars, it might be allowed that this, like any other specific skill, could be imparted without saying a word concerning duty, or sin, or salvation. But we are accustomed to hear far higher praises of the work and of the men that are to form the youthful mind, and so to shape the character and the destinies of a people. Either undue and exaggerating honor is paid to the office of the teacher, or he must teach the most sacred truths, as well as those of inferior majesty and of only earthly interest.

The honest Christian must bid him take his choice. Be the teacher, he will say, of an art or any number of arts, if you will, and touch not moral things; or be a teacher of all which makes the man, and then you must teach the knowledge of God.

The honest teacher will answer, either that he is a Christian, and is ready, according to his ability, to teach religiously and to teach religion; or that he is content to leave to others the higher task, and to teach only the elements of secular science and art. In either event, there is no longer any confusion; and the question, whether there shall be a course of secular instruction, and a separate course of religious instruction, or whether one course shall mingle both, becomes a question of possibility or of expediency, and is transferred from the sphere of abstract principle and imperative conscience.

The clergy of most countries have adhered to the wider view of education in schools, and have insisted, as long as they could, that it should be distinctly Christian, and should even form a part of the ecclesiastical system. They are not to be blamed; and had union in religious belief been preserved, it is hard to prove that their plan would not have been altogether the best. But for this it is now too late. In all free nations the freedom of discussion, doubt, and denial has been practically asserted; and, for all purposes of religious education, the body of Christians is *one* no longer.

In education, viewed as a whole, the place to be occupied by religious truth has not lost, for this cause the smallest measure of its importance. Religion is still as sovereign there as ever. Somewhere in all true and sufficient education it must have its throne; and from that throne it must sway all the rest.

But the State can support no such throne; because the State is composed of an immense mass of men whose religion is not the same. When education becomes a matter of public provision, the very highest part of education is excepted. The public school, even if under that name we should embrace any more elevated institutions which the public funds might sustain, is not the seat of that portion of this moral work which has to do, most directly and most mightily, with the heart. That, however, it must forego, and be content with its own appropriate task and praise.

The higher task must be performed elsewhere; and the consecrated precincts of the church, and the equally hallowed walls of home, must be the scene of religious instruction. It has there, too, a fitter and a happier sphere than the State, with all its wealth or its universal care, can attempt to furnish.

All this is perfectly consistent with the undoubted fact that religion is the prompting motive from which public education has had its origin, and must have its best support. It sustains that education as it sustains every good design. It desires that all men should be trained in useful knowledge of every kind, because it desires their improvement and happiness. Ignorance, in its view, is weakness, is poverty, is exposure to moral disease, is the absence of many of the highest enjoyments, is the obstruction of the purposes for which the beneficent Creator made man in His own image. Therefore, ignorance is an enemy to godliness, and a hinderance of salvation, as well as, in itself, a positive and mighty evil; and religion must long and labor to remove it from the path of society. To suppose that a Christian can be indifferent to the intellectual cultivation of his fellow-men would simply imply that he had no appreciation of its value for himself; for he must wish to communicate all which he prizes.

It is perfectly true, also, that even in the teachers of all secular knowledge, religious men will desire and prefer a spirit and principles like their own. A father who merely commits his son to the instructions of a writing-master, would rejoice to find in him a man of Christian worth, and would feel that the boy was somewhat safer. It is not possible, in any department of life, to exclude or neutralize the beneficial influence of the steadfast fear of God and the sincere love of mankind. The religious man or woman will always be, all other things being equal, unspeakably the better teacher, even of arithmetic or of needlework. Under any system of public education, however remote from a sectarian or exclusive character, this preference will be felt, and cannot be changed into indifference.

Under these systems the introduction of religious instruction, in combination with secular instruction, is relinquished, not upon grounds of abstract excellence, but upon those of convenience or necessity. Accordingly, either the system is not extended over the youngest or the oldest of those who are to be educated; or if it be, it does not command a general acceptance. The public school offers no urgent invitation to the child just rising from infancy; it leaves him, not unwillingly, to the gentle hands of his mother or of some maternal preceptress. At the other end of the course, colleges and universities are commonly allied to the Church rather than to the State. From the latter they accept aid; to the former they accord welcome intervention and an active control. Not merely financial or political considerations fix the limits of public education on this side of the highest institutions of learning. For it is felt that all education must begin and end in religion; that the infant must learn the names of God and of the crucified Redeemer with his first accents; and that the young man should not go forth into the world of professional study, action, and influence, without a settled faith. But between these two periods lies the time which public education appropriates; appropriates, simply because the interests of the commonwealth require the instruction of all in useful knowledge, and because no other power can furnish the means of such instruction for all alike.

If the task of religious education be then declined by the public teacher, it is left in hands which certainly are better fitted to execute it with dignity, with diligence, with fidelity, and with tenderness. It is in the hands of special teachers, whose labors are voluntary; of pastors; and of parents.

The Sunday School has become one of the institutions of society, wherever the English tongue is spoken. It enlists a body of teachers whose intelligence is animated by no other impulse than that of Christian love. They receive no hire, and they wield no instruments of discipline. They come to their pupils on they day which is consecrated to all holy works of piety and charity. There is nothing to disturb the pure influence of their instruction; no other studies crowding in; no intermixture of heathen mythology or abstract science; no hurry to the playground; no dread of the rod or superadded task; and none of those hereditary associations, which, absurd, unjust, and pernicious as they are, yet do still, more or less, connect themselves with the relation between the boy and the professional teacher. Love is the bond between those who teach and those who learn on the Sabbath.

When the pastor is the teacher, love is united with reverence. His office inspires that reverence, and his intelligence in sacred things merits a confidence which might elsewhere be less readily bestowed. The duties of pastors to the young may be but imperfectly undertaken, especially where the ancient and most useful custom of catechising has fallen into neglect. But it would still be great injustice to compare their influence with that of teachers who sustain no sanctity of office, have devoted no special study to sacred letters, and are not, in virtue of their office, supposed to be persons of piety.

But no teachers have an appointment more holy or divine than fathers and mothers. The cannot but educate their children religiously or irreligiously. No separation can take place in the training of home; for that is purely for the heart and soul; and its first and supreme end is the goodness of the child. He learns his prayers on the knees of his mother; he is taught to examine himself at the close of each day; his conduct is, without ceasing, subjected to a watchful scrutiny; there is no vacation, no recess, no occasion when he is released from this supervision. These teachers have an authority, too, which, for him, is the direct interpretation of the will of his Maker. To the child, the voice of the parent is the voice of God; for so has God commanded. And all which he hears and learns from these sources comes to him as nourishment from the bosom of an exhaustless love, to which his childhood must cling as if it were to him the whole wide universe.

This is the provision which the Church and the family, with many collateral aids, assign for religious education. Piety in the public teachers, and religious truth in the common school, would be additional aids; but are they indispensable, or could their influence be weighed in the balance against all this? Whatever may be the excellence of many professional instructors, whatever their noble enthusiasm in their calling, it is not to be disputed, that, as a body, the teachers of public schools are governed, in the choice and pursuit of their occupation, by the same motives which incite persons of respectable and worthy characters in all departments of business. They engage in it for a remuneration; they abandon it when it becomes unprofitable; or they exchange it for positions which are more lucrative or more to their taste. They are not appointed, and cannot well be, for their personal devoutness. If they should teach religion, it would be as they teach grammar, not because the task is known to be enthroned in their affections, but because it is made a part of their business. We do not disparage the transcendent beneficence and exalted piety of many teachers; but it is an accident, so to speak, whether these mark the character of an individual teacher; they are not and cannot be the distinguishing properties of a class selected as teachers must always be under any public arrangements. Little will it avail, that a cold, dry, unfeeling, and perhaps unbelieving teacher, consent to teach catechism, or to open his school with prayers. A truly religious teacher, even without those exercises, will leave some impress of his own spirit on the minds which he has assisted in forming and replenishing. This can be attained even now; and if any would avoid this, they must make piety a ground of exclusion from the office. The most determined unbeliever would hardly desire such an issue; but neither can piety be made a condition of admission, if it were even in our power to enforce the rules, since the talents and acquisitions which make the successful teacher are dissociated from it; and since, precious as it is, it cannot, in this position, be deemed one of the chief instruments on which the cause of religion must rely.

What, then, is the power which Christianity *cannot*, and what is that which it *can*, exercise in the system of public schools of a land like our own?

It *cannot* teach all its doctrines and laws, as they are held by any body of Christian believers.

It *cannot* blend religious truth with secular instruction, to any degree which implies the attempt to communicate systematic religious knowledge.

It *cannot* attempt to inculcate a religious character, or, in other words, faith in the Lord Jesus Christ, by precept and exhortation.

It *can* take for granted a general acquaintance, in the pupils, with the facts of Christianity, united with reverence for it as a Divine revelation.

It *can* infuse into the teacher, so far as he obeys it, a spirit which attracts to his religion, and inspires the desire to resemble its faithful followers.

It *can* afford a Christian view of every science and every department of knowledge, and show their connection with revealed truth in its great outlines.

It *can* inculcate the whole moral code of the Gospel, by rule and example.

It *can* exclude and counteract every influence of infidelity.

It *can*, in many instances, with the universal consent of the community, affix a more decidedly religious character to the school duties of each day, by the observance of daily prayers.

It *can*, with the same consent, introduce the Bible, and promote, by daily reading, the familiar knowledge of its contents; not as if it were a mere reading-book, though the best, but as the generally acknowledged word of God.

It *can*, with the same consent, which may generally be assumed, impress, as occasion is offered, all that great and priceless mass of truth in which all Christians are substantially united.

UNCONSCIOUS TUITION.

BY REV. F. D. HUNTINGTON, D. D.,

PREACHER AND PLUMMER PROFESSOR OF CHRISTIAN MORALITY IN HARVARD UNIVERSITY.

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BY REV. FREDERIC D. HUNTINGTON, D.D.,

Preacher and Plummer Professor of Christian Morals in Harvard University.

By unconscious tuition, I mean that part of a teacher's work which he does when he seems not to be doing any thing at his work at all. It has appeared to me that some of the most nutritive and emphatic functions of an instructor are really being performed while he seems least to be instructing. To apprehend these fugitive and subtile forces, playing through the business of education with such fine energy, and, if possible, to bring them within the range of a practical dealing and discipline, is the scope of my present design. If the topic should fail of entertainment or profit, it will at least yield me this negative advantage, that it will not tempt me to traverse any pre-existing debate, or prejudice, or clique, or dogma.

The central thought of my doctrine is based on the presumption that the ultimate and total object of the teacher's profession is not the communication of knowledge; nor even, according to the favorite modern formula, the stimulating of the *knowing faculty*, if by the knowing faculty we understand a faculty quite distinguished and separate from the believing faculty, the sensibility, and the will. It has been generally admitted, for a long time, that education does not consist in inserting facts in the pupil's memory, like specimens in a cabinet, or apples dropped into an empty barrel, or freight stowed in the hold of a ship. But not only must we dismiss those mechanical resemblances, which liken the mind to a store-house, a granary, a museum, or a library; we must also carry our conception of learning above the notion of an agile and adroit brain. Education does not consist in provoking bare intellectual dexterity, any more than in presenting ascertained truth to the intellectual perceptions; nor in both together. Education involves appeals to faith, to feeling, to volition. The realm of positive science shades off on every side—not by abrupt transition, but by imperceptible gradations—into the realm of trust; nor does science consult her dignity more than her modesty when she undertakes to sharpen the partition-line of hostility between knowledge and belief. So does the true training of the mind implicate an engagement of the affections, including taste or the sense of beauty, and love or the sense of good, both the mind's freedom and its harmony being equally dependent on a healthy heart. And so, again, the understanding and the feelings wait on that brave executor, the will; and nobody can be wise who leaves its scholarship neglected.

In a word, in any liberal or Christian acceptance, education is not the training of the mind, but the training of the man. Being the discipline of an organized subject, it is organic in its own nature. No analytical classification can partition off the elements of humanity like the ingredients of a soil. Even of a tree we can not rear a single branch independently of the others, unless we kill the others back by violence. One-sidedness has been the vice of all systems of education hitherto, and every legitimate advance has been an approach to the recognition of the unity and indivisibility of the educated being as a living and infinite soul.

Let us proceed, on the ground of this principle, with our proper theme. My main propositions are these three: 1st. That there is an educating power issuing from the teacher, not by voice nor by immediate design, but silent and involuntary, as indispensable to his true function as any element in it. 2d. That this unconscious tuition is yet no product of caprice, nor of accident, but takes its quality from the undermost substance of the teacher's character. And 3d. That as it is an emanation flowing from the very spirit of his own life, so it is also an influence acting insensibly to form the life of the scholar.

1. I remind the teacher of a fact, which I presume may have been some time disclosed to him, in his dealings with almost any truth in its more secret relations, viz., that all true wisdom involves a certain something that is inexpressible. After all you have said about it, you feel that there is something more which you never can say, and there is a frequent sensation of pain at the inadequacy of language to shape and convey—perhaps also the inadequacy of the conceptions to define—that secret and nameless thought, which is the delicious charm and crown of the subject, as it hangs, in robes of glory, before your mind. Any cultivated person, who has never been oppressed by this experience, must be subject, I should say, to dogmatism, pragmatism, conceit, or some other comfortable chronic infirmity. Where the nature is rich and the emotions are generous, there will always be a reverential perception that ideas only partly condescend to be embodied in words. So it is always found that the truest effects of eloquence are where the expression suggests a region of thought, a dim vista of imagery, an oceanic depth of feeling, beyond what is actually contained in the sentences. You have to judge an orator as much by what he leaves out as by what he puts in. *He* uses words with the true mastery of genius who not only knows

how to say exactly and lucidly, and with the fewest sounds, the thing he thinks, but how to make what he does say indicate that diviner part of wisdom which must remain forever unsaid. The cleanest rhetorical directness is united with the strongest sense of mystery. You hear thoughts, perfectly within the range of the understanding, sublimely uttered, and you are made aware of the nearness of a world whose thoughts are more sublimely unuttered. Instances at once occur in Shakspeare, in Sir Thomas Browne, in Dante, and, more than in any other living writer, I think, in Thomas De Quincy. So sings old Marlowe:

> "If all the pens that ever poets held
> Had fed the feeling of their masters' thoughts,
> And every sweetness that inspired their hearts,
> And minds, and muses on admired themes;
> If all the heavenly quintessence they 'still
> From their immortal flowers of poesy,
> Wherein, as in a mirror, we perceive
> The highest reaches of a human wit;
> If these had made one poem's period,
> And all combined in beauty's worthiness,
> Yet should there hover in their restless heads,
> One thought, one grace, one wonder, at the best,
> Which into words no virtue can digest."

Nature herself gives us a broad hint to the same purpose. Just when she discloses to our admiration any of her grandest pictures or sculptures, she shuts our lips; "My children, be still," that august schoolmistress sternly says to us, the moment she lifts the vail from before any special majesty or splendor. When we are most moved in any way, she thus prisons our souls in dumb solitude, and makes us feel the utter helplessness of our tongues. If we are presumptuous enough to talk, she secretly rebukes our babbling. The less imposing and lighter aspects of nature permit us to be sociable; but when her diapason-voice sounds, our impertinent ones must cease. A loquacious company may prattle and jest while they float among the winding straits of a picturesque harbor, shut in by the limitations of that narrow scenery; but, if they have souls within them, they will grow thoughtful and silent as they sail out upon the infinite ocean, amid the sublime simplicity of the waves and the sky. They may chatter and laugh together in the variegated and blooming valley; but when they go up among the eternal hills of God, and look off from those solemn pillars of his heaven, an invisible hand will seem to draw them apart from one another, inspiring them with a wonder that no dialect can articulate. They may gossip in gardens of sunshine, but one roll of celestial thunder hushes them.

I am not pretending that in the ordinary processes of juvenile instruction one often arrives at any such impressive expansion of thought, or any such intensity of feeling. I shall not be so understood. Of course a class in spelling, a recitation in arithmetic, the grammatical corrections in an exercise in composition, the daily discipline of three-score boys and girls, will seldom raise those vast and reverential sentiments. My purpose here is simply to show that some of the deepest and most powerful impressions are made on our minds, independently of any spoken or written words, by influences, by signs, by associations beyond any speech. And this point lies close to my argument. You know the remark they used to make about Lord Chatham; that everybody felt there was something finer in the man than any thing he ever said. We are taught, and we teach, by something about us that never goes into language at all. I believe that often this is the very highest kind of teaching, most charged with moral power, most apt to go down among the secret springs of conduct, most effectual for vital issues, for the very reason that it is spiritual in its character, noiseless in its pretensions, and constant in its operation.

Besides, I do undertake to say, only by the way, that in the teacher's profession, as in every other, we are not to judge of the possibilities, or the limitations of the calling, by its common aspects, or its every-day repetition of task-work. I protest against the superficial and insulting opinion, that, in the education of children, there is no room for the loftiest intellectual enterprise, and no contact with divine and inexpressible wonders. Any teacher that so judges his vocation by its details belittles it. The school-room, no less than the philosopher's laboratory, the studio, or the church itself, opens upward into God's boundless heaven. Each of these very sciences I have named has moral relations, and terminates in spiritual mystery. And when you awaken a feeling of that great truth in your pupil by the veneration, the earnestness, and the magnetic devotion of your own mind, you have done him a service no less essential to the completeness of his education, than when you have informed his understanding of certain scientific facts. Arithmetic, for instance, ascends into astronomy, and there you are introduced to laws of quantity, which make the universe their diagram—to the intellectual magnitudes of La Place and Newton—to the unsearchable empire of that religion which feels after the God of Arcturus and the Pleiades. The rules of grammar are only intelligible formularies that lie on the outmost boundary of an inexhaustible study. And the government of your pupils, what is it but the faint and erring endeavor to transfer, into that little kingdom you administer, the justice and the love which are the everlasting attributes of the Almighty himself, applying them even there to immortal souls? Let us not wrong the dignity of such an employment by denying its connection with things unspeakable.

I return, however, to the direct path of my subject. And while I maintain that the scholar ought by all means to learn, from the sympathies of the teacher's spirit, that every study he follows is intertwined with moral obligations, and is related to a divine source, in ways which no text-book does or can lay down, I proceed to more specific statements. It is not in respect to particular branches of instruction, but in respect to what we may call *the moral power of the teacher's own person*, as something, indeed, in which the right action and the best success of *all* kinds of instruction are bound up, that I affirm the necessity of this unspoken and unconscious influence.

If we enter successively a number of school-rooms, we shall probably discover a contrast something like this. In one we shall see a presiding presence, which it will puzzle us at first sight to analyze or to explain. Looking at the master's movements—I use the masculine term only for convenience—the first quality that strikes us is the absence of all effort. Every thing seems to be done with an ease which gives an impression of spontaneous and natural energy; for, after all, it *is* energy. The repose is totally unlike indolence. The ease of manner has no shuffling and no lounging in it. There is all the vitality and vigor of inward determination. The dignity is at the farthest possible remove from indifference or carelessness. It is told of Hercules, god of real force, that "whether he stood, or walked, or sat, or whatever thing he did, he conquered." This teacher accomplishes his ends with singular precision. He speaks less than is common, and with less pretension when he does speak; yet his idea is conveyed and caught, and his will is promptly done. When he arrives, order begins. When he addresses an individual or a class, attention comes, and not as if it was extorted by fear, nor even paid by conscience as a duty, but cordially. Nobody seems to be looking at him particularly, yet he is felt to be there, through the whole place. He does not seem to be attempting any thing, elaborately, with anybody, yet the business is done, and done remarkably well. The three-fold office of school-keeping, even according to the popular standard, is achieved without friction and without failure. Authority is secured, intellectual activity is stimulated, knowledge is got with a hearty zeal.

Over against this style of teacher we find another. He is the incarnation of painful and laborious striving. He is a conscious perturbation; a principled paroxysm; an embodied flutter; a mortal powers of his place, who has left out the lessons of his own countenance. *There* is a perpetual picture which his pupils study as unconsciously as he exhibits it. His plans will miscarry, if he expects a genial and nourishing session, when he enters with a face blacker than the blackboard. And very often he may fail entirely to account for a season of rapid and sympathetic progress, which was really due to the bright interpretations and conciliatory overtures glancing unconsciously from his eyes, or subtly interwoven in the lines of frankness and good-will about his lips. The eye itself alone, in its regal power and port, is the born prince of a school-room. He answers a score of questions, or anticipates them, by a glance. "The human countenance," it has been said, "is the painted stage and natural robing-room of the soul. It is no single dress, but wardrobes of costumes innumerable. Our seven ages have their liveries there, of every dye and cut, from the cradle to the bier; ruddy cheeks, merry dimples, and plump stuffing for youth; line and furrow for many-thoughted age; carnation for the bridal morning, and heavenlier paleness for the new-found mother. All the legions of desires and hopes have uniforms and badges there at hand. It is the loom where the inner man weaves, on the instant, the garment of his mood, to dissolve again into current life when the hour is past. There it is that love puts on its celestial rosy red; there lovely shame blushes and mean shame looks earthy; there hatred contracts its wicked white; there jealousy picks from its own drawer its bodice of settled green; there anger clothes itself in black, and despair in the grayness of the dead; there hypocrisy plunders the rest, and takes all their dresses by turns; sorrow and penitence, too, have sackcloth there; and genius and inspiration, in immortal hours, encinctured there with the unsought halo, stand forth in the supremacy of light."

What then? Can a man look otherwise than nature made him to look? Can he reconstruct his features? Can he resolve his face into beauty by a purpose? I reply, nature made his countenance to reflect the spirit of his life. It is a common maxim that some faces, plainest by the rules of classic symmetry, are noble with moral dignity and radiant with spiritual light. The faces we love to look at, over and over again, must be the really beautiful faces, and these are the faces of lovely persons, no matter about your Juno or Apollo. Said Chrysostom, speaking of Bishop Flavian, who had gone to intercede with the Emperor for the rebellious citizens of Antioch, "The *countenance* of holy men is full of spiritual power." This kind of beauty, the only real kind, *is* producible. The soul, such as it is, will shine through. But the completeness of that transformed expression will be seen only where the long patience of self-control, and the holiest sincerity of love, and the slow triumph of unselfish principle, have wrought their interior work, molding the inner man into a nobleness that the outward shape may honestly image.

Another of these unconscious educatory forces is the voice; the most evanescent and fugitive of things, yet the most reliable as a revealer of moral secrets. The voice, I mean now, not as an articulate medium of thought—that would be its *conscious* function, and that we here expressly set aside—but the voice as a simple sound, irrespective of syllables, and by its quality and volume, by tone, modulation, wave, and cadence, disclosing a disposition in the heart. It must have occurred to us all, how brave and long-continued and sore struggles of right with wrong in the conscience, the secret conflict of heaven with hell, Ormuzd with Ahriman in the bosom, may have been the needful preparation that gave one note of the voice, apparently falling as the most careless of acts, its sweet, celestial accent. I have no doubt that the unexplained reason why some persons remain strangely repulsive to us in spite of all resolute efforts to overcome the aversion, may be owing to some uncongenial quality betokened only in the tones of the voice. And it is familiar how the magic of a euphony, made musical and gracious by pity and love, wins wonderful convictions. I remember hearing a thoughtful person, of fine moral intuitions, who had been a little tormented by the eccentricities of a man of genius, say that all his annoyances vanished before the marvelously affecting pathos with which this odd visitor spoke the single word *Good-night*. We all remember the story of our philanthropic countrywoman quieting the rage of a maniac by her tones. Elizabeth Fry used to do the same thing at Newgate. What we only need to remember is, that into these unpremeditated sounds goes the moral coloring of a character compacted in the deliberate formation of years. And if we would breathe magnanimity, we must be, we must *have been*, magnanimous.

Still another of the silent but formative agencies in education is that combination of physical signs and motions which we designate in the aggregate as *manners*. Some one has said, "A beautiful form is better than a beautiful face; but a beautiful behavior is better than a beautiful form. It is the finest of the fine arts. It abolishes all considerations of magnitude, and equals the majesty of the world." A treatise that should philosophically exhibit the relative proportion of text-books and mere manners, in their effects on the whole being of a pupil, would probably offer matter for surprise and for use. It was said that an experienced observer could tell, in Parliament, of a morning, which way the ministerial wind blew, by to end. Exactly the reverse was the feeling with which I laid down the 'Life and Letters of Southey.' I was instructed, amused, interested; I profited and admired, but with the *man* Southey I had no sympathies; my mind stood off from his; the poetic intellect attracted, the material of the character repelled me. I liked the embroidery, but the texture was repugnant." And that impression is as much more practical and efficient in the school-room than elsewhere, by as much as the place is more circumscribed and simple, more subject to unity and system, the insight of the observers more unsophisticated and their age more plastic. It is the impression which is the moral resultant of all that the teacher has grown up to be—the perpetually overflowing *animus* or spirit, of the sum total of his manhood, weak or strong, sound or corrupt, candid or crafty, generous or mean, sterling or counterfeit, heathen or Christian.

Nor need it cast any suspicion on this doctrine that it implies a power acting which we can not shut up into definitions; certainly not as long as we are born out of one indefinable mystery and die into another. It is a property of man, no less than of even material things, that he carries along with him more than can be measured by his literal dimensions. Why, there is not a flower in all God's gardens but suggests more meaning to the heart than Linnæus himself could extract from its calyx by botanic manipulations. The graceful outline of mountains, the splendor of planets, the shimmer that hangs over the curved sea in a summer noon, the awfulness of midnight, are far more to us than any philosophic data can describe. The commonest objects take on attributes and exert a power not at all accounted for by their matter or visible uses. The house where I was born says something to me, and I thank Him who dwells in a house not made with hands, inhabiting eternity, for it—something which can not be interpreted by the wood, and iron, and mortar, and clay that compose the structure, nor yet by the proportions into which architecture has fashioned them. Its language is eloquent with the immaterial voice, "the unwritten poetry," and the fleeting images that cluster about those lyric names, Childhood and Home.

The Bible that your mother gave you borrows its beauty from no book-maker's art; and before you open its leaves to read, it has sent in a mystic message upon your soul. There are household hymns, divine parables, inspired prophecies, half whose value consists, not in what they literally or purposely disclose, but in what they intimate by association. Shall we hesitate to ascribe a richer measure of the same kind of influence to him who is animated by a living spirit, and to own a virtue going out from him, the unconscious revelation of his acquired and inward character?

There is one kind of education, too, which has never yet perhaps had exact justice done it under any system, which must be carried forward by this indirect and pictorial method. I mean the imagination; that genial, benignant, Divinely-given faculty. By express tuition you can do almost nothing for it, and what you do you will be likely to do wrong. But unconscious forces within you will stimulate it. And how richly it rewards such nurture! I doubt whether there is any department of even material prosperity that does not stand somehow indebted either for impulse, or courage, or adorning, to the imagination, and whether there is any kind of work that reaches its highest perfection without some of its wonders and pictures. Not a mechanic's bench, nor farmer's home, but imagination has touched it, transfigured it, blessed it with her wand.

Stillingfleet, I know, calls the imagination "a shop of shadows," but it has brightened more shops than it has shaded; and Stillingfleet is not the only preacher that has reviled the source of much of his own power. Imagination acts through association, through form and motion, through glances, through what is most human in our humanity. It is the aureola of common life and the morning light of hope. How many burdens it has eased, how many threatening calamities it disarms, how many clouds it tips with gold, how much homely drudgery it clothes in garments of splendor! Hunt's lines are true as beautiful, in their condensed significance, and suit my purpose as exactly as if they were written for it:

> "Fancy 's the wealth of wealth, the toiler's hope,
> The poor man's piecer-out, the art of nature,
> Painting her landscapes twice; the *spirit* of fact
> As matter is the body; the pure gift
> Of Heaven to poet and to child; which he
> Who retains most in manhood, being a man
> In all things fitting else, is most a man,
> Because he wants no human faculty,
> Nor loses one sweet taste of the sweet world."

Then I think of the dull, stupid scholars in every school; the poor brains that text-books torment; the sad, pitiable dunderheads, with capacity enough for action perhaps by-and-by, but dismally puzzled for the present by these mysteries of geography and fractions. What a jubilee to them is the day they find an animated and vital teacher, who teaches by all the looks, and motions, and heart-beats, and spirit of him, as well as by those dreary problems and ghastly pages. There is no grade of intellect that this highest learning of the soul does not reach, and so it is a kind of impartial gospel, uplifting glad tidings to encourage despair itself.

It helps, negatively, to the same conclusion, that no moral influence that is put forth, as by deliberate contrivance to put it forth, avails much. It seems as if to go about in cool blood to undertake an influence—to get it up and spend it, forfeited the privilege, like getting up sympathy by a conspiracy, or falling in love, with a prospectus. Who ever heard of a man becoming influential by saying: 'Go to, now, I propose to be influential?" Something about this great sympathetic force requires that it should be, in a sense, indirect and unconscious, in order that it be valid. There is a providential necessity that it be got by preliminary accretions of merit, and be distributed because it can not be helped, or rather distribute itself. We all hate, with a wholesome sort of disgust, the canting formalist, who approaches us with the unctuous advertisement that he intends to operate on us with sanctifying manners, like the pattern young man who offered, in the newspaper, to go into a family where his influence would pay his board. Nobody discerns this assumption of character sooner than boys and girls. Matters of mere technical information may be legitimately conveyed by almost any tongue, but to exercise the power of character, a character must have been earned. The title must have been won by a heroic tone, habitually high. And then its influence, molding these pliant young natures around you, will be as sure as it is silent. Nothing can keep it back. Character is a grand creation in itself. But its grandeur never remains an abstraction. In moral life, influence is the complement of being.

II. It is time, then, to pronounce, more distinctly, a fixed connection between a teacher's unconscious tuition and the foregoing discipline of his life. What he is to impart, at least by this delicate and sacred medium, he must be. "No admittance for shams" is stamped on that sanctuary's door. Nothing can come out that has not gone in. The measure of real influence is the measure of genuine personal substance. How much patient toil, in obscurity, so much triumph in an emergency. The moral balance never lets us overdraw. If we expect our drafts to be honored in a crisis, there must have been the deposits of a punctual life. To-day's simplest dealing with a raw or refractory pupil, takes its insensible coloring from the moral climate you have all along been breathing. Celestial opportunities avail us nothing unless we have ourselves been educated up to their level. If an angel come to converse with us on the mountain top, he must find our tent already pitched in that upper air. Each day recites a lesson, for which all preceding days were a preparation. Our real rank is determined, not by lucky answers, or some brilliant impromptu, but by the uniform diligence. For the exhibition-days of Providence there is no preconcerted colloquy—no hasty retrieving of a wasted term by a stealthy study on the eve of the examination. Bonnivard, Huss, Wyclyffe, Alfred, Cromwell, Washington, Madame Roland, Sir John Franklin, these valiant souls were not inoculated for their apostleship *extempore.* The roots of all their towering greatness, so brave to the top, ran back under the soil of years.

I have seen a sudden thunder-gust smite an elm on one of our river-meadows, tossing its branches, twisting its trunk, prying at its root till it writhed, as if wrestling with an invisible Titan, and tearing off a few light leaves to whirl in airy eddies, but yet struggling in vain to unsettle the firm and elastic lord of the green valley from its place. Did the earth give her graceful and kingly child, as the cloud came up, any special props or braces, any thicker bark, or longer root to breast the shock? All these had to be provided in the persevering nurture of spring suns and winter blasts, sap-giving summer nights and dripping autumn rains, when no eye could mark the gradual growth. The tempest did not create the vigor which it tried and proved, and left erect as ever.

Test these general positions, in their practical bearing, on your employments, as before, by a familiar example. It is in the experience of most teachers, I presume, that on certain days, from first to last, as if through some subtile and untraceable malignity in the air, the school-room seems to have fallen under the control of a secret fiend of disorder. There is nothing apparent to account for this epidemic perversity. All the ordinary rules of the place are in full recognition. The exercises tramp on in the accustomed succession. The parties are arranged as usual. There are the pupils, coming from their several breakfasts, bringing both their identity and their individuality; no apostasy nor special accession of depravity, over night, has revolutionized their natures; no conspiracy out of doors has banded them into a league of rebellion. Yet the demoniacal possession of irritability has somehow crept into the room and taken unconditional lease of the premises. You would think it was there before the first visible arrival. The ordinary laws of unity have been suddenly bewitched. The whole school is one organized obstruction. The scholars are half-unconscious incarnations of disintegration and contra-position—inverted divisors engaged in universal self-multiplication!

How is such a state of things to be met? Not, I think, you will agree, by direct issue; not *point blanc.* You may tighten your discipline, but that will not bind the volatile essence of confusion. You may ply the usual energies of your administration, but the resistance is abnormal. You may flog, but every blow uncovers the needle-points of fresh stings. You may protest and supplicate, scold and argue, inveigh and insist, the demon is not exorcised, nor even hit, but is only distributed through fifty fretting and fidgeting forms. You will encounter the mischief successfully, when you encounter it indirectly. What is wanted, is not a stricter sovereignty, but a new spirit. The enemy is not to be confronted, but diverted. That audible rustle through the room comes of a moral snarl, and no harder study, no closer physical confinement, no intellectual dexterity will disentangle it. Half your purpose is defeated if the scholars even find out that you are worried. The angel of peace must descend so softly that his coming shall not be known, save as the benediction of his presence spreads order, like a smile of light, through the place. If a sudden skillful change of the ordinary arrangements and exercises of the day takes the scholars, as it were, off their feet; if an unexpected narrative, or fresh lecture on an unfamiliar theme, kept ready for such an emergency, is sprung upon their good-will; if a sudden resolving of the whole body into a volunteer corps of huntsmen, on the search of some etymological research, the genealogy of a custom, or the pedigree of an epithet surprises them into involuntary interest; or, in a younger company, if music is made the Orphean minister of taming savage dispositions again, then your oblique and unconscious tuition has wrought the very charm that was wanted; the room is ventilated of its restless contagion, and the Furies are fled.

Or if, as is more than probable, the disorder was in the teacher himself; if the petulance of the school all took its origin in the disobedience of some morbid mood in the master's own mind or body, and only ran over, by sympathetic transmission, upon the benches, so that he saw it first in its reflection there, of what use to assail the insubordination by a second charge out of the same temper? His only remedy is to fall back on the settled spiritual laws of his being. He must try to escape out of the special disturbance into the general harmony. He must retreat, in this emergency of temptation, into those resources of character, principle, affection, provided by the previous and normal discipline of his soul. This he will achieve by some such process as that just now specified, displacing the ground of a direct and annoying conflict by new scenery, and, rather leaping up out of the battle, with foes so mean, than staying to fight it out on their level.

On the other hand, you sometimes find yourself taken up into those lofty moods where you feel gifted with an unwonted competency. You are equal to all encounters then. Your spiritual atmosphere is bracing and elastic. Every opportunity offers itself, like an instrument, right end first. The school, the study, the workshop seems to have been waiting for you to arrive. Every yesterday was like the Jewish preparation-day for a Sabbath. All things are possible. The school-room that day, and all the planet, is under your feet. The recitations take the pitch of your own will; your sentences of explanation come out round and clear, like golden drops. Your steps are the march of a conqueror. Impediments are annihilated. Order is spontaneous. These elevated and depressed moods serve as high and low water-marks to show the sweep of the tidal vibration. But neither the one nor the other is produced by a direct volition. They come by indirection. The springs that produce the ebb and flow lie back of all proximate causes, among the more comprehensive laws of character. And when your state is most free and effective, you feel that the best effect, after all, is not so much exerted by intention as by some involuntary spirit of felicity possessing you. Your success is due, not to specific undertakings at the moment, so much as to an unconscious influence, acting through your person as its organ, a motive to itself. The same thing is revealed to us, if we fix our attention on that common word, good-nature. Good-nature is one of a school-teacher's benignant forces. And it is a force at once unconsciously exerted, and slowly acquired or kept; a reservoir, and not a spout, nor an April shower.

Something analogous takes place in the purely intellectual part of our nature. And this is best illustrated by those acts of the mind which are creative or inventive A subject that you labor painfully to unfold at one time, at another time unfolds itself. That happens, I dare say, to you, which is common enough with writers of sermons; after special elaborate efforts to exhaust a topic, or to set distinctly forward its central idea, he may be apprized that he has only preached *about* the thought, but has not preached *it;* while, in some subsequent performance, when he was not trying, he struck the mark exactly in the eye. The thing he spent a whole discourse in trying to say without getting it said, after all, says itself in a dozen natural words. Of course, the internal relations of truth with itself have not changed, but he has changed, and has become a more simple medium, or voice, for truth to speak by.

The question is a practical question: Are these occurrences the anomalies they appear, or are they subject to a secret law? Was the final and unexpected elucidation of the theme in no way indebted to the previous exercise? Or, was the clarified mental faculty, when the nebulous conception came out into strong, sharp light, the result of no foregoing discipline, or immediate and determinable cause, affecting the health of the brain? Is it certain that the "dark days" at school are totally inexplicable phenomena, and inevitable? Or can those other days of liberty and joy never be created at will?

It is my belief, that these instances I have cited are simply extreme examples of a force which runs through all our life, the force of a funded but unreckoned influence, accumulated unconsciously, and spending itself through unconscious developments; in other words, that these special moods, whether dense or rare, which appear to come and go without our control and without law, are yet the result of causes pertaining to the regular growth of character. I believe that whenever psychology and physiology shall come to be as exactly understood as the mathematical relations of astronomy, one of these freaks of temperament may come to be as confidently predicted as an eclipse of the sun. It is an outbreak, under prepared conditions, of a moral quality inbred by foregoing habits, however mixed and obscure. In short, there is a spirit of the schoolroom; not to be waited for, like a miraculous Pentecost, but to be earned, and gained, and unfolded, like every great spiritual treasure in our life, under the steady grace of God.

III. My third and final point is, that, as the unconscious tuition emanates from the inmost spirit of the teacher's life, not by accident nor lawless caprice, but in real accordance with the antecedent growth and quality of his character, so it is the most decisive energy molding the interior life of the scholar. The whole divine economy, as respects our constitution, renders it impossible to detach the power of a man's speech from the style of his personal manhood. A handsome but heartless speaker never yet stole the secret of a sincere conviction. He may gain an unlimited admiration, but he is abridged of permanent strength. The climate of abstract and unembodied thought is a polar zone. If there is a moral ingredient in the business of education at all, then, as with all other institutions that affect society, the question is paramount, What is the quality, temper, life of the speaking man? When an aspirant for public office, of a vicious substance or no substance at all, is defeated in his ravenous and lying ambition, however correct his mere political opinions, there is a divine justice in his disappointment. And we are well persuaded, if we are good citizens, that when chicane and falsehood gain a temporary promotion, the Nemesis that can afford to wait is not outwitted. The world's ardent and lasting enthusiasms center in some great personal object. How it would mock every admiring and reverential sentiment we cherish toward the august and endeared memory of the Father of his Country, if we were told to expunge from our minds all notion of what Washington *was* as a man, erase that lofty figure from the early scenery of the nation's history, sink his personal characteristics, and think only of the written words preserved to us in Mr. Sparks' collection of his correspondence and political documents! Personal relations, friendships, sympathies, clasped hands, answering eyes, touch, symphonious heart-beats, constitute the chief charm and privilege and joy of existence. We can easily conceive of all the bare *materiel* of instruction being conveyed into a school-room through a mechanism of pipes in the wall, or maps let down by pulleys, and its discipline administered by a vailed executioner, no heart-relations being suffered to grow up between teacher and taught. Into what sort of a bleak degradation would a generation be reduced by such a machinery? Yet every teacher approaches to that metallic and unillumined regimen who lets his office degenerate into a routine; who plods through his daily task-work like the tread-wheel wood-sawing horse in the railway-station shed, with no more freshness of spirit than the beast, and no more aspiration than the circular saw he drives; who succumbs to the deadening repetition, and is a virtual slave, yoked under bondage to the outside custom of his work. All sorts of human service are more or less exposed to be paralyzed by this torpor of routine; but no intellectual profession stands in more peril of coming under the blight of it than that of the teacher, partly for the reason that the same lessons recur, and partly because of the distance of attainment separating the preceptor from the pupil. There are some lawyers who plead like parrots; some doctors who give medicine as mechanically as a trip-hammer smites iron; some preachers who preach only from the throat outward, fetching up no deep breaths from the region of the heart; some manufacturers whose mental motions are as humdrum as their own shuttles, and engineers as automatic as the valves and levers of their engines. It is a greater mischief than we think, and strikes a deeper damage into the world's honor. Going through the whole lesson of life in the homeliest prose, from spade to sermon, from kitchen to church, from making loaves to making love, from marketing to marriage, such people dwarf down the whole wondrous majesty and mystery of our being to a contemptible carving-mill, turning out so many blocks or blockheads from so much timber. But the wrong done by it is never more disastrous than when it falls on the buoyant, the impressible, the affectionate, and aspiring soul of childhood. Let every beginner, on the threshold of his vocation, earnestly pray and strive to be saved from the doom of a routine teacher!

The world is full of proofs of the power of personal attributes. In most situations—in none more than a school—what a man *is* tells for vastly more than what he *says*. Nay, he may say nothing, and there shall be an indescribable inspiration in his simple presence. Every person represents something, stands for something. At least he represents a value antecedently created in his own character. As was said of Bias, the wise Greek: Himself is the treasure that a whole life has gathered. He stands for the wealth of being that a thousand past struggles have contributed to form. It is a Romish legend, that Christ and the Virgin have appeared to certain saints and impressed sensible and indelible works on their persons. Such signs of heavenly favor are certainly stamped on the great and good whom we revere, by their secret conflicts, ended in victories. Unobserved, unuttered, unconscious, is the preparation of that power. Eight solitary and suffering years the great modern apostle of Christian missions toiled at his post before a single convert confessed the faith; did he dream of the mighty influence those obscure and patient years were building up, to react on the faith and inspire the zeal of all believing souls, thus *re-Christianizing Christendom?* So his wise and calm biographer—if I may be pardoned this reference to a living educator whose wisdom you have all seen and felt as well as heard—has often seemed to me a striking illustration of the strength that lives in simple character, apart from, beyond and above, all the literal contents of all speech and all actions. And when we ascend from human personages to the Divine, and behold the Lord of all souls, just before his crucifixion, bending to wash his disciples' feet, we have, in that visible posture of condescension, a symbolizing of the whole humility of his religion—an incarnation of his redeeming office, which, like the cross itself, no language can translate. Seneca advised one of his friends to represent to himself Cato, or Socrates, or some other sage, as a constant observer—as a formative power. Alexander's statue had no such stimulus to inflame Cæsar, as the schoolmistress of a dozen pupils has to raise ennobling resolves in their susceptible blood.

There is a touching plea in the loyal ardor with which the young are ready to look to their guides. In all men, and in women more than in men, and in children most of all, there is this natural instinct and passion for impersonating all ideal excellence in some superior being, and for living in intense devotion to a heroic presence. It is the privilege of every teacher to occupy that place, to ascend that lawful throne of homage and of love, if he will. If his pupils love him, he stands their ideal of an heroic nature. Their romantic fancy invests him with unreal graces. Long after his lessons are forgotten, he remains, in memory, a teaching power. It is his own forfeit if, by a sluggish, spiritless brain, mean manners, or a small and selfish heart, he alienates that confidence and disappoints that generous hope.

I would say to all teachers—if I may here express my sense of the unity of their office, in its true interpretation, with my own as a minister in the Church—we have been touching here the most sacred issues of our common duty. It is felt, I believe, more and more every day, by all instructors who do not insult and profane their high calling by mere frivolous or mercenary dispositions, that the saddest perplexity they have to meet is the right moral management of their charge. Would to God we might help one another in that profoundest study! On your intellectual harvest, notwithstanding the inequalities of gifts, you can rely with a comparative assurance, in return for your fidelity. But when you approach the child's conscience and spirit, you confess the fearful uncertainties that invest that mysterious and immortal nature. Need it be always so? Have we no promises from God? Is there no covenant for our children to comfort us? Is not temptation itself subject to spiritual laws, which we may hope more and more to comprehend as we descend into deeper and deeper fellowship with Him who hath put all things under his feet?

Of this at least we may be sure. The fixed and everlasting principles of character can not be put aside, nor bribed, nor held in suspense, either to accommodate our moral indolence or to atone for our neglects. What we are daily sowing in self-discipline we shall reap in the failure or success of our work. What is in us will out, spite of all tricks and masks. Genuine souls *tell*, and no hypocrisy can mock or circumvent them. If we mean to train disciples of a Christian virtue, we must march the whole road ourselves. If we would mold the living sculpture, we must first fashion our implements out of purity, simplicity, love, and trust. We are watched, we are studied, we are searched through and through by those we undertake to lead—not in a jealous or malignant criticism, but in earnest good faith. A manhood that is manly, a womanhood that is womanly—these are not such ugly sights that young hearts should turn away from them or disown their fascination. Like produces like. Candor, magnanimity, veracity, tenderness, worship—these are no juvenile graces meant to be set on children's breasts by grown-up teachers on whose own lives their glory never gleams

Not the most unflagging persistence, not the pains-taking that wears out sinews and nerves, and wearies hope itself; not the sharpest correction or the kindest counsel; not the most eloquent exhortations to the erring and disobedient, though they be in the tongues of men or of angels, can move mightily on your scholars' resolutions, till the nameless, unconscious, but infallible presence of a consecrated heart lifts its holy light into your eyes, hallows your temper, and breathes its pleading benediction into your tones, and authenticates your bearing with its open seal. This, my brothers and sisters, is our necessity. And because it is Heaven's command, it is our sufficient encouragement.

No system of education is complete till it concerns itself for the entire body, and all the parts of human life—a character high, erect, broad-shouldered, symmetrical, swift; not *the mind*, as I said, but *the man*. Our familiar phrase, " whole-souled," expresses the aim of learning as well as any. You want to rear men fit and ready for all spots and crises, prompt and busy in affairs, gentle among little children, self-reliant in danger, genial in company, sharp in a jury-box, tenacious at a town-meeting, unseducible in a crowd, tender at a sick-bed, not likely to jump into the first boat at a shipwreck, affectionate and respectable at home, obliging in a traveling party, shrewd and just in the market, reverent and punctual at the church, not going about, as Robert Hall said, "with an air of perpetual apology for the unpardonable presumption of being in the world," nor yet forever supplicating the world's special consideration, brave in action, patient in suffering, believing and cheerful everywhere, fervent in spirit, serving the Lord. This is the manhood that our age and country are asking of its educators—well-built and vital, manifold and harmonious, full of wisdom, full of energy, full of faith.

The researches of vegetable chemistry tell us that flowers borrow their colors, by hidden affinities, out of the separate soils they grow on, though the earthy bed gives no prophetic pledge, to the eye, of the beauty that will bloom from it. A dull, sober, quakerish clay shoots up "the splendid hues of the hypoxis," and the lupine spreads its soft azure petals over the sharp yellow sand. The fringed gentian,

> " Blue, blue as if the sky let fall
> A flower from its cerulean wall,"

smiles over the blackest mud. There are plants that suck luxuriant verdure from the arid breast of rocks. Others, on margins of the ocean, distill sweetness through roots soaked always in bitter brine; and others seem to breathe in their only nutriment from the air, turning the impalpable ether, by their marvelous alchemy, into snow-white berries or evergreen boughs. But into that more wonderful human stock, of whose nurture I speak, there enter, by influences as concealed, as mysterious, yet as conformable to the divine regularity of the causes in God's economy, not only the blended contributions of all elements in earth, and sea, and air, but the spiritual forces of a living Guide. And so the educated man is meant to be, not a subject of philosophic climates or geographic sections, but the incarnation of an illimitable humanity, with all the universe in his leaping pulses, with life eternal in the organs of his liberal and believing soul.

Teachers are the directors, under Christ, the masters of this immortal rearing. The Prussians have a wise maxim, that whatever you would have appear in a nation's life you must put into its schools. Entering into the dignity of so grand an enterprise, teachers are the ministers of every higher institution in our social state. They are friends and benefactors of the family. They are builders and strengtheners of the Republic, perpetually reinaugurating the Government. They are apostles for the Church. They are fellow-helpers to the truth of Him who is Father of all families, King over all empires, Head of the Church. If I heartily congratulate them on such possibilities and opportunities of honor, will it be deemed a presumption that I have urged them to be disinterested in that friendship, wise master-builders, faithful apostles ?

I. QUESTIONS

FOR THE

EXAMINATION OF A SCHOOL.

II. TOPICS

FOR

DISCUSSION AT TEACHERS' MEETINGS.

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QUESTIONS FOR THE EXAMINATION OF A SCHOOL.

I.—NAME, TERRITORIAL CONDITION, POPULATION, AND PECUNIARY RESOURCES OF THE DISTRICT, OR LOCALITY OF THE SCHOOL.

1. Local, or neighborhood name?
2. Territorial extent? length? breadth?
3. Thickly or sparsely populated?
4. Population by last census; date of census?
5. Classification of population by age—(*a*) Number under 5 years of age? (*b*) between 5 and 15? (*c*) between 15 and 20?
6. Number of families residing in district?
7. Classification of families according to occupation—(*a*) Number engaged in agriculture; (*b*) do. in trade or shop-keeping; (*c*) do. in mechanic shops; (*d*) do. in factories or mills; (*e*) do. in navigation; (*f*) do. in banks; (*g*) do. in public offices; (*h*) clergymen; (*i*) lawyers; (*j*) physicians; (*k*) not actively engaged in any business; (*l*) day laborers?
8. Classification as to right of voting, whole number—(*a*) Number of voters as to municipal matters generally; (*b*) do. as to levying taxes; (*c*) do. as to establishing and regulating school?
9. Amount of valuation of taxable property—(*a*) Real estate? (*b*) personal? (*c*) mixed? (*d*) polls?
10. Amount of funds of all kinds (*except* school-houses, premises, and appendages,) belonging to school?
11. Amount of annual income—(*a*) State or town (other than district) fund? (*b*) do. property tax? (*c*) from district property tax? (*d*) from rate or tuition paid by parents? (*e*) from donations or subscriptions by individuals?
12. Number of schools in the district, of every grade, public and private?

I.—SCHOOL PREMISES.

A. GENERAL.

1. Place where school is kept—(*a*) In building designed and used only for school? (*b*) in building built or used for other purpose?
2. In whom is the title to the site and school-house vested?
3. By whom was the site purchased, and building erected—(*a*) By committee of district? (*b*) gift of individuals?
4. Cost of school property at this date?
5. Is the district in debt for all, or any part of the same?
6. Who is responsible for the care and preservation of the school property?
7. Are there any regulations respecting it?

B. SITE.

1. Extent of the site in feet? length? breadth?
2. Cost of the same, and present value?
3. Nature—high, dry, exposed, or sheltered?
4. Condition—(*a*) Well drained? (*b*) bounded? (*c*) inclosed
5. Neighborhood, distance from noisy shop or thoroughfare?
6. Convenient to the population? if not, could a site more central or accessible be readily obtained?
7. By whom is the site of school-house determined?
8. What distance must the pupils, generally, travel before reaching the school?
9. What is the nature or general condition of the roads?
10. Distance of front of school-house from the front line of the grounds?
11. Distance of rear of school from the rear line of the grounds?
12. Distance of each side of house from corresponding boundary of lot?
13. Is the yard properly graded, fitted up, and divided for a play-ground for each sex?
14. Can you suggest any improvement of play-ground?
15. Are suitable privies and urinals provided, and kept always neat?

8. How many attend *three-fourths* of the term? *one-half?* less than *one-half?* less than *one-fourth?*

9. How do you ascertain the causes of absence? By receiving a written excuse? by inquiring of the parents of the pupils? if by the latter, who makes the inquiry?

10. What measures do you adopt to secure regular attendance? by vacating their seats after a certain number of absences without excuse? by informing parents by weekly or monthly reports? by regulating the standing of pupils in part by their attendance?

11. Do you enforce punctuality, as well as regularity of attendance? and how?

12. How many hours in the day is your school in session? and how many intervals for recreation?

13. How many half days in the week do you keep school? do you have half holidays on Saturday and Wednesday?

14. When and for how long a time are your vacations and holidays?

D. CLASSIFICATION.

1. Are the pupils classified according to age?

2. Is there a distinct classification of the pupils, according to their proficiency in each branch of study? *i. e.*, are they classified according to their proficiency in spelling? in reading? in arithmetic? or does their proficiency in one branch, say that of reading, regulate the classification in all the branches?

3. Into how many classes, in each branch respectively, are your pupils arranged? and how many pupils in each class?

4. Do you have a time-table, with an exercise for a specified portion of each session?

5. How many hours, or half-hours, are devoted to each subject, daily? weekly?

6. Do you keep class-registers, in which every absence, recitation, and the standing of each member is noted?

E. COURSE OF INSTRUCTION.

1. PHYSICAL DEPARTMENT.

1. Have you reflectedon the importance of pure air, correct personal habits, cleanliness, and exercise, in the school training of your pupils?

2. Have you devised a series of games or movements in which your pupils can, at proper times, engage, and which call for the exercise of strength and activity in all the different muscles?

3. Is the play-ground furnished with the circular swing? vaulting frame? climbing pole, or other simpler forms of gymnastic machinery?

4. Is any portion of the play-ground covered, to protect it from rain and inclement weather?

5. Do your pupils meet in the play-ground before entering the school, and how often do they resort to it during the school session?

6. Are they superintended during their sports and exercises?

7. How do you secure the requisite purity and temperature of the atmosphere in the school and class-rooms, at all times?

8. Do you attend to the postures of your pupils at their desks, and recitations?

9. Do you make recitation, reading aloud, and singing, the means of physical training?

10. Do you apply the principles of physiology as developed in text-books, or in your oral instructions to the practical duties of the school-room, and of daily experience?

2. MORAL AND RELIGIOUS DEPARTMENT.

1. Is the school daily assembled and dismissed with religious exercises? with prayer? reading of the scriptures?

2. Is the Bible or selections read as a religious exercise every day in classes? or by a portion of the school? or by the teacher?

3. Are the pupils required to commit to memory psalms, passages of scriptures, &c.?

4. Do you give a systematic course of lessons from scripture?

5. Do all children receive religious instruction daily? or is it restricted to particular days, and to the older and more advanced pupils?

6. In case any parent objects to the course pursued in conducting religious exercises, or in imparting religious instruction, what course do you pursue? Are the children of such parents allowed to be absent at the time? or excused from taking part in such exercise or instruction?

7. Has any attempt been made by the clergy of different denominations to give religious instruction on certain days in the week, to the pupils of their several persuasions? and if so, with what success?

8. Apart from direct religious instruction and influence, what do you do to form moral habits, the habit of always acting conscientiously? of always telling the *truth*—the whole truth, and nothing but the truth? of punctuality and regularity? of diligence? of perseverance? of forethought? of kindness? of courtesy? of mercy to inferior animals? of forgiveness? of charitableness? of justice? of respect to property? of respect for superiors? of submission to the authority of law? of truth? of reverence for God and obedience to his laws?

9. Do you administer the government of your school with special reference to the moral culture of your pupils? in holding out motives to study and good behavior? in the punishments inflicted, &c.?

3. INTELLECTUAL DEPARTMENT.

1. Have you formed, for your own guidance, any scheme of the work to be done by you in developing, training, and storing the minds of your pupils? of the order in which the several powers or faculties of the mind should be developed, so that its growth shall be symmetrical and vigorous?

2. By what studies, and in what manner, do you cultivate the power and habit of accurate observation? memory? comparison? calculation? reflection? reasoning? imagination? expression?

4. ÆSTHETICAL DEPARTMENT.

1. Do you embrace in your ideas of primary education the development of the sentiment of the beautiful, and a love of order, harmony, and suitableness, in nature, art, literature, and life?

2. Do you make occasional excursions to interesting natural objects in your neighborhood, improve the principal phenomena of nature as they occur, employ music, drawing, and recitation as elements in this branch of education?

3. Do you have regard to this department in cultivating order, cleanliness, and grace? in the personal habits of your pupils?

5. INDUSTRIAL DEPARTMENT.

1. Are any industrial branches taught, such as sewing, knitting, dress-making, &c.? at what hours? and by whom?

2. Do you communicate a practical knowledge of the elementary principles of domestic and rural economy, and of technology?

STUDIES AND TEXT-BOOKS.

1. Enumerate the branches taught, and the number of pupils attending to each branch?
2. Enumerate the books used in teaching each branch?
3. Mention what books are used by each class?
4. By what authority are the books introduced into the school?
5. Do you experience any difficulty in inducing parents to provide the necessary books?
6. How many pupils are unprovided with all the necessary books and stationery?
7. Can all the books required be obtained without difficulty in the neighborhood?
8. Is there any plan adopted for supplying poor children with books, slates, &c., gratuitously or at reduced prices?
9. Are the school-books used considered by you in every respect satisfactory?
10. Have you any improvement to suggest in the books, or mode of supplying the school?
11. Are writing materials provided by the children? by the teacher? by the local school committee? or how?

METHODS.

1. To what extent, and in what branches, do you practice individual teaching?
2. To what extent do you practice the collective and simultaneous method, or address your teaching to a class or the school?
3. Are your collective lessons devoted to subjects on which improvement depends on the amount of individual practice, as reading and spelling, or to subjects connected with manners, morals, and religion?
4. Do you aim to characterize your collective lessons by simplicity, both of manner and illustration, and by animation, both of voice and manner?
5. Do you rest satisfied if you obtain an answer to a question from one, or do you repeat and remodel the question till the matter is understood and answered by all?
6. Do you employ your pupils as monitors of order? attendance, &c.?
7. To what extent do you employ your pupils as monitors in teaching?
8. Do you train every monitor in every lesson he is to teach?
9. Do your monitors receive any remuneration or distinction?

0. What branches are taught orally?

11. Are the pupils exercised in catechising each other?

12. Are the pupils exercised in giving written answers to written questions?

13. Do you occasionally require your pupils to write from memory an abstract of the lesson?

14. Do you call on your scholars to recite individually in the order in which they are arranged in the class?

15. Do you put out your questions to the whole class or school, and then point to the individual to answer?

16. Do you require every error to be corrected by the pupil making it, after it has been corrected by another pupil, or by yourself?

17. Do you aim at giving your pupils a thorough acquaintance with a few subjects, or a superficial acquaintance with many?

18. Do you feel at the close of every lesson that your pupils really understand what they have been attending to, and that the subject has become a means of intellectual development?

19. Are lessons in the various branches prescribed for preparation at home?

20. Do you have recourse occasionally to singing, or gymnastic exercises, to relieve the mind, and sustain the attention of your pupils during the progress of a lesson?

21. For how many consecutive minutes do you keep a class at recitation or lesson?

22. To what extent do you practice the system of interrogation, *i. e.*, a plan of carefully devised questions, by which the limits of the pupil's knowledge is discovered, and he, at the same time, is led to infer some new truth?

23. Do you require frequent and full explanation from your pupils of the meaning and etymologies of words, used in their spelling, reading, and other lessons?

24. Do you avoid indefinite questions, and such as, by admitting of only "yes," or "no" for an answer, encourage guessing?

25. Do you employ the elliptic, or suggestive system, in which the pupil is expected to fill up in a statement an important omission, or to infer the fact or truth of a proposition which logically follows from so much as is stated?

26. However important you may deem one or more of these or other methods, do you aim to vary the same and to adapt your methods to the study, the difficulty, the class, or the individual in hand?

27. Do you aim to bring your own mind and heart into immediate and creative contact with the mind and heart of each pupil?

28. Give a statement of any peculiarity of method pursued by you?

SPELLING.

1. Do you classify your school in reference to spelling, as distinct from reading

2. Do you confine the spelling exercise to a text-book in spelling?

3. Do you require a definition or explanation of every word put out in the spelling exercise?

4. Do you sometimes test correctness in spelling, by dictating sentences containing one or more words of the spelling lesson, to be written on the blackboard or slate?

5. Do you put out the words to be spelled in the order in which they stand in the spelling-book?

6. Do you call on the pupils to spell in the order in which they stand in the class?

7. Do you put out the word to the whole class, and then designate the pupil who shall spell the same?

8. Do you practice your pupils in both oral and written spelling of the more difficult words?

9. Do you require the pupil to write on the blackboard the word he has misspelled orally?

10. Do you practice the method of dictating a number of words to be written by the class as a general exercise?

11. Do you require that the pupils should pass their slates or papers containing their spelling lesson, to be corrected by each other?

12. Do you require each pupil to rewrite correctly, and spell orally, the words which have been misspelled in the writing exercise?

13. Do you require the pupil to pronounce the word before he attempts to spell the same?

14. Do you require the pupil to pronounce each syllable as he spells it, together with the syllable already pronounced?

15. Do you require your elder pupils to copy pieces of poetry and exercise in grammar, with a view to improvement in spelling?

16. Do you require frequent exercise in original composition, partly to test and improve their habits of spelling, as well as of punctuation and capitalization?

READING.

1. Do you define and limit the portion to be read by a class?
2. Is the portion assigned of such moderate length as to allow of its being read three or four times at each lesson?
3. Do you read all or any portion of the lesson at the time it is given out, by the way of example?
4. Do you give illustration or explanation of obscure illusions, difficult words, and point to sources of information as to such and similar difficulty?
5. Do you require every member of the class to be attentive while one is reading?
6. Do you call on the class to read in the order in which they are seated?
7. Do you commence each lesson at the same place in the class?
8. Do you exact particular attention to the position of the reader?
9. Do you require that he throw his shoulders back, and hold the book at the right distance, and elevation?
10. Do you try to break up monotonous tones by requiring the pupil to write a sentence on the blackboard, and then to read the same?
11. Do you allow, as an occasional exercise, a class, or each member of a class, to select a piece for reading?
12. Do you point out on the map, or require the pupil to point out all places occurring in the lesson read?
13. Do you encourage mutual questioning on the part of the class, as to meaning of words?
14. Do you encourage a free detection of errors?
15. Do you require at the beginning, or close of a lesson, an explanation of the general character, style, and subject of the lesson?
16. Do you teach the definitions, and etymologies, and spelling of words in the reading lessons?
17. Do you occasionally require the class to read in concert?
18. Do you occasionally require the class to write a composition on the subject of the lesson?
19. Do you require every error in reading to be corrected by the pupil making it?

COMPOSITION.

1. Do you classify your pupils in reference to writing composition?
2. Do you accustom your youngest pupils to write or print words and short sentences on the slate, from your dictation?
3. Do you ask them to print or write something about what they have seen in coming to school, or read in the reading lesson?
4. As a preliminary exercise in composition, do you engage them in familiar *talk* about something they have seen in their walk, and has happened in and about the school? and when they have got ideas, and can clothe them orally in words, do you allow them as a privilege to write or print the same on the slate or paper?
5. Do you give out a number of words, and then ask your pupils to frame sentences in which those words are used?
6. Do you require your older pupils to keep a journal, or give an account of the occurrences of the day, as an exercise in composition?
7. Do you instruct your pupils as to the most approved form of dating, commencing, and closing a letter, and then of folding and addressing the same for the post-office?
8. Do you require your pupils to write a letter in answer to some supposed inquiries, or about some matter of business?
9. Do you request your older pupils to write out what they can recollect of a sermon or lecture they have heard, or of a book they have been reading?
10. At what age do your pupils usually commence writing easy sentences or compositions?

GRAMMAR.

1. Do you make your pupils understand that the rules of grammar are only the recognized usages of language?
2. Do you give elementary instruction as to parts of speech and rules of construction, in connection with the reading lessons?
3. Do you accustom your pupils to construct sentences of their own, using different parts of speech, on the blackboard?
4. Have you formed the habit of correct speaking, so as to train, by your own example, your pupils to be good practical grammarians?
5. At what age do your pupils generally commence this study?

ARITHMETIC.

1. Are your pupils classified in arithmetic?
2. Do you have a specified time assigned for attention by classes, or the whole school, to this study?
3. Do you use a *numeral frame*, and commence with and constantly refer to *sensible objects* in giving elementary ideas of number?
4. Do you question at every step in an arithmetical operation?
5. Do you explain easily and constantly all terms and marks?
6. Do you accustom your pupils to connect the abstract principle of the book with the objects about them?
7. Do you make constant use of the blackboard?
8. Do you go through a regular system of mental arithmetic with each class or pupil?
9. Do you allow a pupil or class to proceed to a second example, unless you are quite sure the first is thoroughly understood?
10. Do you always give one or more additional examples under each rule than are to be found in the text-book?
11. At what age do your pupils generally commence arithmetic?

PENMANSHIP.

1. How many pupils attend to penmanship?
2. Does your whole school attend to writing at the same time?
3. How often do they attend to writing, in morning and afternoon, and how long at each exercise?
4. Have you any physical exercises to give strength and flexibility to the hand and wrist?
5. Do you require the books to be kept clean, free from blots, and without the corners being turned down?
6. Have you a system of teaching penmanship?
7. Do you practice setting the copies in each book?
8. Do you occasionally write in chalk on the blackboard a copy, and require the whole school to imitate your mode of doing the same?
9. How are the pupils supplied with copy books? with ink? with pens?
10. Do you instruct your pupils in the art of making a pen?
11. Do you use metal or quill pens?
12. Do you show your pupils how to clean, and repair metal pens with a file?
13. Do you require your pupils to remove every ink-spot made by them, accidentally or otherwise, on the desk or floor?
14. Do you allow the ink to remain in the ink pots, or the ink pots in the desk, except when the class or school is engaged in writing?
15. Do you occasionally encourage your pupils to exchange specimens of their penmanship with pupils of some neighboring school or schools?
16. At what age do your pupils commence writing?

GEOGRAPHY.

1. Have you a compass, and do you make your pupils acquainted with the four cardinal points of the heavens, and have you the same marked on the floor or ceiling of your school-room?
2. Do you learn them how to find the north star at night, and to locate the north wherever they may be by day?
3. Have you a terrestrial globe divided into two equal parts, and connected by a hinge, to give a correct idea of the two hemispheres, or map of the world?
4. Have you a large globe painted black, on which the pupils may give an outline in chalk, of latitude, longitude, zones, &c.?
5. In the absence of any globe, do you construct a globe, or make use of some common object like an apple, for this purpose?
6. Do you aim to give your young pupils clear and practical ideas of distance and direction, and the elementary ideas of geography, by constant and familiar reference to the well known objects and physical features of their own neighborhood?
7. Have you a map of the district, town, county, or state in which the school is located?
8. Do you require your pupils to make a map of the school-room, or play-ground, and from that explain the principles on which maps are constructed, and what they are made to represent?
9. Do you commence map-drawing by accustoming your pupils to lay off the lines of latitude and longitude on the blackboard and slate?
10. Do you find any advantages in placing the map on the north wall of the room, o Lvaing the class recite facing the north?

11. Do you explain the different scales on which maps are constructed?

12. Do you occasionally require your pupils to designate a particular place both on the globe and on the map, and also to point with the finger in the direction of the same?

13. Do you connect the teaching of geography with the reading lessons, and especially with the study of history?

14. Do you occasionally test their knowledge of geography by questioning them as to places and productions of different climates mentioned in advertisements, and the shipping intelligence in the newspapers?

15. Do you occasionally take a book of travels, or a voyage, and require your pupils to trace the route of the traveler, on a map of their own construction?

16. Do you, especially with the older pupils, teach geography by *topics*—rivers, mountains, lakes?

17. Do you accustom your older pupils to construct their own geographical tables, in which the different physical features of a country, continent, or the earth, as mountains, rivers, &c., are classified by their distinguishing element, such as length, height, &c.?

8. At what age do your pupils enter upon this study?

HISTORY.

1. At what age do your pupils commence the study of history?

2. Do you, at any period of his education, endeavor to give each pupil a clear and practical idea of the measurement of time, *i. e.*, of the comparative length of a minute, an hour, a day, a week, a month, and a year?

3. Do you aim in any way to make him conceive the want of his own experience during a day, a week, or year, as constituting his own chronology and history for that period of time, and so apply the idea to the chronology and history of a people, or state?

4. Do you modify the exercise of map-drawing, by requiring your pupils to fill up an outline map of the world, with the nations as they were at a particular epoch? and so of each country, as different exercises?

5. Do you occasionally require your pupils to denote on an outline map of the world, the birth-place (date, &c.) of celebrated persons who have led armies, founded colonies, or changed the moral aspects of the age in which they lived?

6. Do you always require your pupils to study history with constant reference to geography and the map?

7. Do you accustom your pupils to make their own tables and chronology?

8. Do you occasionally give out a particular period in the history of a country, and the world, as an exercise in composition or conversation, pointing out several authors to be consulted on the subject?

9. Do you make your lesson in history at the same time a reading lesson?

10. Do you aim, by the aid of pictorial representation, poetic extracts, and vivid oral description, to enlist the imagination in realizing the scenery, occupations, and customs of the people whose history they are studying?

11. Do you avoid the common method of assigning a certain number of pages for a lesson, and requiring the pupils to answer the prepared questions thereon?

12. Do you aim to conduct your lessons in history mainly with a view of showing them how to study it by themselves, and after they leave school, than of going over much ground?

13. Do you aim to show the influence which certain individuals, and classes of men, exerted on the age and country in which they lived?

DRAWING.

1. Have you acquired the art of drawing as a beautiful and expressive language, and as a valuable aid in the work of education generally; by exercising the eye and the hand, training and enlarging several of the highest faculties of the mind, and cultivating the taste in all that depends on form, proportion, harmony, and colors?

2. Do you not find it an indispensable help in teaching penmanship, geography, physiology, geometry, surveying, navigation, astronomy, mechanics, and natural philosophy?

3. Have you prepared yourself to teach it to your pupils, for its constant and manifold use in almost every occupation in practical life; to all engaged in producing articles of utility, ornament, and taste; and a source of innocent and refining recreation in every home?

4. Do you resort to even its simplest forms and exercises, for the purpose of interesting and employing your youngest pupils, while you are engaged in instructing the more advanced classes?

5. If it is a regular branch in your scheme of instruction, do you teach it on a system; commencing with the first elements, and insisting on your pupils giving their

whole attention to each lesson, and on their acquiring, by constant practice, accuracy and facility in each successive exercise?

6. Do you accustom them to frequent review of the principles already acquired, and teach them to distinguish practically between light and accurate lines, and those which are coarse and careless?

7. Do they draw at different times from copies, models, and nature?

8. Do you require your pupils to preserve their drawings, both as a check on the formation of careless and untidy habits, and as a means of self-criticism?

9. Do you so teach as to make your pupils feel that even moderate success requires attention, exercises the judgment, cultivates the tastes, makes the eye observant and the movements of the hand exact, and at the same time imparts a new, beautiful, and expressive language?

MUSIC.

1. Can you sing by note?
2. Can you play upon any instrument?
3. Do you teach or cause singing in school, either by rote or by note?
4. Do you use singing as a relieving exercise for ill humor or weariness in school?
5. Do you use any instrument, or have any used, as an accompaniment to singing?
6. Do you teach to use the proper musical voice in singing?
7. Do you do so from ear, or from knowledge of the physiology of the vocal organs?
8. How many of your pupils prove on trial unable to understand music, or acquire even a moderate degree of proficiency in the practice?

GOVERNMENT.

1. Do you enter on your duties in the school-room in the right spirit, in good health, and with the right preparation for your work?

2. Do you aim to make your children *love* you, by exhibiting a strong sympathy in their pursuits, and a fondness for their company?

3. Do you attend strictly to punctuality, regularity, and order in your own duties?

4. Do you perform your work with animation, exercise constant patience, and never lose your temper?

5. Do you exhibit firmness, impartiality, kindness, and parental regard toward your scholars?

6. Do you see that your pupils are all properly seated and every way physically comfortable, as to light, air, and temperature?

7. Do you see that all your children at all times have something to do, and a *motive* for doing it?

8. Do you make order, quietness, and obedience, the *habit* of your school?

9. Do you aim to enlist the affection and activity of the older pupils in doing good to you and the school?

10. Do you give rewards of any kind? places in the class? ticket? prizes, as part of your system of government?

11. What punishments are inflicted? corporal punishment? confinement? detention after school is dismissed? loss of place in class? imposition of tasks? and for what offenses are these and other punishments inflicted?

12. If corporal punishment is inflicted, what is the instrument used? When and where is the chastisement given?

13. Are you careful to avoid a spirit of fault-finding, and to improve every proper occasion for a judicious use of praise?

14. Are you careful to administer rebuke more in sorrow than in anger, and in a way to evince a real regard for the feelings of the delinquent?

15. Do you try to secure the co-operation of parents in the government of the school?

16. Have you had cases of thoroughly incorrigible pupils? and if so, what did you do with them?

17. Do you find that emulation, or the desire of surpassing, can be employed as a motive to study and good behavior, without stirring up jealousy, envy, and ill-will, and be made subordinate to the cultivation of kind and generous feelings?

18. Are your rewards bestowed mainly for evidence of intellectual capacity, or for habitual industry, regular acquisition, and general good conduct in relation to the duties of the school?

19. Are your punishments unmixed with exhibition of personal feelings, such as anger, scorn, sneer, or triumph?

20. Do you pay proper regard to the physical condition of the culprit, such as a disordered nervous system, natural irritability and restlessness of temperament, or debility of body, in administering punishment?

21. Have you observed that punishment is effectual in proportion to its certainty more than to its severity? and more from the manner, than its frequency?

EXAMINATIONS.

1. Have you periodical reviews of lessons? weekly? monthly? quarterly?
2. Do you conduct the reviews by oral or written questions and answers?
3. Do public examinations of the pupils take place periodically? monthly? quarterly? half yearly? annually?
4. Who conducts the examinations? Legally appointed committees? Disinterested persons on invitation? The teacher?
5. On what principle are the examinations conducted? Is the whole month's, quarter's, half-year's, year's work stated, and the portions examined fixed by the examiners or teacher?
6. Are parents invited to be present?
7. Do many parents attend? How can they be induced to attend more frequently?

PARENTAL AND PUBLIC INTEREST.

1. How many visits have been made to your school during the current year or term, by committees?
2. How many parents have visited your school during the same period?
3. How many visits, official and otherwise, have been paid to your school during the year or term?
4. How many times have you been invited to the homes of your pupils?
5. Specify the circumstances that appear to you to operate most in retarding, in your locality, the progress of sound and comprehensive education?
6. What improvements do you consider desirable in the organization or administration of your school?

OTHER MEANS OF POPULAR EDUCATION.

1. Number of private or select schools in the district, or neighborhood?
2. Grade and designation of each?
3. Number of pupils in each grade?
4. Rate of tuition per term?
5. Influence of these schools on the common schools?
6. Can the common school be so improved in organization, studies, or discipline as to supersede them, in whole or in part?
7. Name of every lyceum or literary society, with date and names of the individuals principally engaged in organizing the same?
8. Number of members? Terms of admission? Regular exercises of each?
9. Are there any exercises calculated to interest and instruct the community, beyond those who are enrolled as members?
10. Can any or all of these societies be improved so to act more directly on, or in harmony with the instruction of the common school?
11. Name of any library, not connected with the common school? Date and circumstances of its establishment?
12. Number of volumes? Average annual increase? Means for purchasing new books?
13. Number of persons having access to? Conditions for drawing books?
14. What has been the influence of the library on the mental and moral culture of the community?
15. Do you know any striking examples of the influence of even a good common school education in raising individuals born under circumstances of extreme poverty, to positions of the highest usefulness?
16. Have you any facts to show the difference between the pecuniary value of educated and uneducated laborers—between the laborer with his hands, and the laborer with his hands and his mind?
17. Have you any facts to show the relations of a defective and faulty education, in the periods of infancy and childhood, to insanity? The influence of excessive mental labor on inherited predisposition to insanity?
18. Have you any facts to show the influence of idleness and ignorance in leading to a career of crime?
19. Do you know of a single instance of a criminal, whose early home and school education was properly attended to?
20. Is any additional legislation necessary to protect children under fourteen years of age from excessive labor, and secure to them, from parents, guardians, or employers, the privileges of an elementary education?
21. Have you any vagrant and neglected children in your district? Would not a school of industry be desirable for such children?
22. Do you know of instances of young criminals having been made worse by having been sent to the county jail or state prison? Is not a state reform school needed for such persons?

TOPICS FOR DISCUSSION AT TEACHERS' MEETINGS.

1. The daily preparation which the teacher should bring to the school-room.
2. The circumstances which make a teacher happy in school.
3. The requisites of success in teaching.
4. Causes of failure in teaching.
5. The course to be pursued in organizing a school.
6. The order of exercises or programme of recitations.
7. The policy of promulgating a code of rules for the government of a school.
8. The keeping of registers of attendance and progress.
9. The duties of the teacher to the parents of the children and to school-officers.
10. The opening and closing exercises of a school.
11. Moral and religious instruction and influence generally.
12. The best use of the Bible or Testament in school.
13. Modes of promoting a love of truth, honesty, benevolence, and other virtues among children.
14. Modes of promoting obedience to parents, respectful demeanor to elders, and general submission to authority.
15. Modes of securing cleanliness of person and neatness of dress, respect for the school-room, courtesy of tone and language to companions, and gentleness of manners.
16. Modes of preserving the school-house and appurtenances from injury and defacement.
17. Length and frequency of recess.
18. The games, and modes of exercise and recreation to be encouraged during the recess, and at intermission.
19. Modes of preventing tardiness, and securing the regular attendance of children at school.
20. Causes by which the health and constitution of children at school are impaired, and the best ways of counteracting the same.
21. The government of a school generally.
22. The use and abuse of corporal punishment.
23. The establishment of the teacher's authority in the school.
24. Manner of treating stubborn and refractory children, and the policy of dismissing the same from school.
25. Prizes and rewards.
26. The use and abuse of emulation.
27. Modes of interesting and bringing forward dull, or backward scholars.
28. Modes of preventing whispering, and communication between scholars in school.
29. Manner of conducting recitations generally; and how to prevent or detect imperfect lessons.
30. Methods of teaching, with illustrations of each, viz:
    - *a.* Monitorial.
    - *b.* Individual.
    - *c.* Simultaneous.
    - *d.* Mixed.
    - *e.* Interrogative.
    - *f.* Explanative.
    - *g.* Elliptical.
    - *h.* Synthetical.
    - *i.* Analytical.
31. Modes of having all the children of a school (composed as most District schools are, of children of all ages, and in a great variety of studies,) at all times something to do, and a motive for doing it.

32. Methods of teaching the several studies usually introduced into public schools—such as—

- *a.* The use, and nature, and formation of numbers.
- *b.* Mental Arithmetic.
- *c.* Written Arithmetic.
- *d.* Spelling.
- *e.* Reading.
- *f.* Grammar—including conversation, composition, analysis of sentences, parsing, &c.
- *g.* Geography—including map-drawing, use of outline maps, atlas, globes, &c.
- *h.* Drawing—with special reference to the employment of young children, and as preliminary to penmanship.
- *i.* Penmanship.
- *j.* Vocal music.
- *k.* Physiology—so far at least as the health of children and teacher in the school-room is concerned.

33. The apparatus and means of visible illustration, necessary for the schools of different grades.

34. The development and cultivation of observation, attention, memory, association, conception, imagination, &c.

35. Modes of inspiring scholars with enthusiasm in study, and cultivating habits of self-reliance.

36. Modes of cultivating the power and habit of attention and study.

37. Anecdotes of occurrences in the school, brought forward with a view to form right principles of moral training and intellectual development.

38. Lessons, on real objects, and the practical pursuits of life.

39. Topics and times for introducing oral instruction, and the use of lectures generally.

40. Manner of imparting collateral and incidental knowledge.

41. The formation of museums and collections of plants, minerals, &c.

42. Exchange of specimens of penmanship, map and other drawings, minerals, plants, &c., between the different schools of a town, or of different towns.

43. School examinations generally.

44. How far committees should conduct the examination.

45. Mode of conducting an examination by written questions and answers.

46. School celebrations, and excursions of the school, or a portion of the scholars, to objects of interest in the neighborhood.

47. Length and frequency of vacations.

48. Books and periodicals on education, schools and school systems.

49. Principles to be regarded in the construction of a school-house for schools of different grades.

50. Principles on which text-books in the several elementary studies should be composed.

51. The use of printed questions in text-books.

52. The private studies of a teacher.

53. The visiting of each other's schools.

54. The peculiar difficulties and encouragements of each teacher, in respect to school-house, attendance, supply of books, apparatus, parental interest and co-operation, support by committees, &c., &c.

55. The practicability of organizing an association of the mothers and females generally of a district or town, to visit schools, or of their doing so without any special organization.

56. Plan for the oganization, course of instruction, and management generally of a Teachers Institute.

57. Advantages of an Association or Conference of the Teachers of a Town or State, and the best plan of organizing and conducting the same.

58. Plan of a Normal School or Seminary, for the training of Teachers for Common or Public Schools.